

3. The bulk storage of oil, fuel, chemical, or hazardous materials, on either a temporary or a permanent basis, is prohibited, except for uses allowed by the zoning classification. For the purpose of this section, heating oil, small boat fuel, yard maintenance, equipment fuel, propane, sewage sumps, and similar items common to single-family residential uses are not included in this definition.

D. Plants and Animals.

Policies

1. In general, this Master Program shall strive to protect and restore anadromous fish resources in the Puget Sound and its tributaries within the City of Shoreline.
2. Shoreline development, uses, and activities shall be:
 - a. Located and conducted in a manner that minimizes impacts to existing ecological values and natural resources of the area, conserves properly functioning conditions, and ensures no net loss of shoreline ecological functions;
 - b. Scheduled to protect biological productivity and to minimize interference with fish resources including anadromous fish migration, spawning, and rearing activity;
 - c. Designed to avoid the removal of trees in shorelines wherever practicable, and to minimize the removal of other woody vegetation. Where riparian vegetation is removed, measures to mitigate the loss of vegetation shall be implemented to ensure no net loss; and
 - d. Designed to minimize impacts to the natural character of the shoreline as much as possible.

Regulations

1. Mitigation shall be required of the applicant for the loss of fish and wildlife resources, and natural systems, including riparian vegetation, wetlands, and ~~sensitive~~ other environmentally critical areas. The mitigation required shall be commensurate to the value and type of resource or system impacted by development and activity in the shoreline. On-site compensatory mitigation shall be the preferred mitigation option, except where off-site mitigation can be demonstrated to be more beneficial to fish and wildlife resources, and natural systems, including riparian vegetation, wetlands, and critical ~~sensitive~~ areas. If on-site compensatory mitigation is not feasible or if off-site mitigation is demonstrated to be more beneficial to the shoreline environment, the applicant shall provide funding for a publicly sponsored restoration or enhancement program in the City of Shoreline.
2. Enhancement, restoration, and/or creation of coniferous riparian forest or forested riparian wetland shall be the preferred mitigation for impacts to riparian vegetation and wetlands when avoidance is not possible. Preference will be based on site-specific recommendation of qualified professional. Alterations to fish and wildlife habitat conservation areas should be avoided. If they

cannot be avoided, mitigation is required, and a habitat management plan shall be prepared as required in SMC ~~20.240.274~~~~20.80.290~~ and ~~20.80.300~~.

3. Habitat management plans shall be forwarded by the applicant to the appropriate State and/or Federal resource agencies for review and comment. The City will provide the applicant with a list of addressees for this purpose.

4. Based on the habitat management plan, and comments from other agencies, the Director may require mitigating measures to reduce the impacts of the proposal on the fish and wildlife habitat conservation areas. Mitigating measures may include, but are not limited to:

- a. Increased or enhanced buffers;
- b. Setbacks for permanent and temporary structures;
- c. Reduced project scope;
- d. Limitations on construction hours;
- e. Limitations on hours of operation; and/or
- f. Relocation of access.

5. Mitigation activities shall be monitored to determine effectiveness of the habitat mitigation plan. Monitoring shall be accomplished by a third party, subject to the approval by the Director, and shall have the concurrence of the U.S. Fish and Wildlife Service, NOAA Fisheries, Washington State Department of Fish and Wildlife, and, where applicable, the Washington State Department of Ecology. Monitoring shall occur for up to 10 years following implementation of the plan. Results of the monitoring shall be publicly available and reported to the U.S. Fish and Wildlife Service and National Marine Fisheries Service. Reports shall contain the following information:

- a. A list and map of parcels subject to this requirement;
- b. The implementation status of the habitat management plans;
- c. Status of the improvements (e.g., updates if success standards are being met, what types of remedial actions have been implemented); and
- d. Recommendations for corrective measures if necessary.

6. If proposed mitigation is found to be inadequate, or if adequate mitigation is determined to be impossible, the application shall be denied.

7. Timing of in-water construction, development, or activity shall be determined by Washington State Department of Fish and Wildlife.

8. Properties that are located in the urban conservancy shoreline environment designation shall retain trees that are 12 inches or more in diameter. Trees determined by a certified arborist to be hazardous or diseased may be removed upon approval by the City. If healthy or

nonhazardous trees are removed, each removed tree must be replaced with at least three six-foot-tall trees, one 18-foot-tall tree, or one 12-foot plus one six-foot-tall tree. Trees must be of the same species removed, or equivalent native tree species.

E. Noise.

Policy

1. Noise levels shall not interfere with the quiet enjoyment of the shoreline.

Regulations

1. Any noise emanating from a shoreline use or activity shall be muffled so as to not interfere with the designated use of adjoining properties. This determination shall take into consideration ambient noise levels, intermittent beat, frequency, and shrillness.

2. Ambient noise levels shall be a factor in evaluating a shoreline permit application.

Shoreline developments that would increase noise levels to the extent that the designated use of the shoreline would be disrupted shall be prohibited. Noise shall be evaluated pursuant to Chapter 9.05 SMC Noise Control. ~~Specific maximum environment noise levels can be found in WAC 173-60-040.~~

F. Public Health.

Policy

1. All development within the regulated shoreline shall be located, constructed, and operated so as not to be a hazard to public health and safety.

Regulations

1. Development shall be designed to conform to the codes and ordinances adopted by the City.

G. Land Use.

Policy

1. The size of the shoreline development and the intensity of the use shall be compatible with the surrounding environment and uses. The City of Shoreline may prescribe operation intensity, landscaping, and screening standards to ensure compatibility with the character and features of the surrounding area.

2. Shoreline developments shall minimize land use conflicts to properties adjacent to, upstream, and downstream of the proposed site.

Regulations

1. In reviewing permit applications, the City shall consider current and potential public use of the shoreline, total water surface reduction, and restriction to navigation.

2. Development within the designated shoreline shall comply with the development and uses standards for the underlying zoning district.

H. Aesthetics.

Policy

1. Development should be designed to minimize the negative aesthetic impact structures have on the shoreline by avoiding placement of service areas, parking lots, and/or view- blocking structures adjacent to the shoreline.

Regulations

1. Development shall be designed to comply with the code standards required in the underlying zoning district.
2. If the zoning and use require landscaping, or if planting is required for mitigation by the Director, the property owner shall provide a landscape plan that provides suitable screening that does not block public views.
3. Development on or over the water shall be constructed as far landward as possible to avoid interference with views from surrounding properties and adjoining waters.
4. Development on the water shall be constructed of nonreflective materials that are compatible in terms of color and texture with the surrounding area.
5. Lighting shall be properly directed and shielded to avoid impacts to fish and off-site glare.

I. Historical/Cultural.

Policy

1. Development should strive to preserve historic or culturally significant resources.

Regulations

1. Developments that propose to alter historic or culturally significant resources identified by the National Trust for Historic Preservation, the Washington State Department of Archaeology and Historic Preservation, the King County Historic Preservation Program, or the City of Shoreline Historic Resource Inventory, or resources that could potentially be designated as historically or culturally significant, shall follow the applicable Federal, State, County, or local review process(es).
2. All shoreline permits issued by the City require immediate work stoppage and City notification when any item of archaeological interest is uncovered during excavation. The applicant or project owner shall notify the Washington State Department of Archaeology and Historic Preservation ~~Office~~, affected Indian tribes, and the City.

3. Where archaeological or historic sites have been identified, and it is determined that public access to the site will not damage or reduce the cultural value of the site, access may be required consistent with SMC 20.230.040.

~~20.230.030 Environmentally sensitive areas within the shoreline.~~

~~A. Critical Areas.~~

~~General Policy~~

- ~~1. Preserve and protect unique, rare, and fragile natural and manmade features and wildlife habitats.~~
- ~~2. Enhance the diversity of aquatic life, wildlife, and habitat within the shoreline.~~
- ~~3. Conserve and maintain designated open spaces for ecological, educational, and recreational purposes.~~
- ~~4. Recognize that the interest and concern of the public are essential to the improvement of the environment, and sponsor and support public information programs.~~
- ~~5. The level of public access should be appropriate to the degree of uniqueness or fragility of the geological and biological characteristics of the shoreline (e.g., wetlands, spawning areas).~~
- ~~6. Discourage intensive development of shoreline areas that are identified as hazardous or environmentally sensitive.~~

~~General Regulations~~

- ~~1. Critical areas in shoreline jurisdiction are regulated by the critical areas regulations (which were adopted on February 27, 2006, by Ordinance No. 398) codified under Chapter [20.80 SMC](#), which is herein incorporated into this SMP with the exceptions of the following:
 - ~~a. SMC 20.80.030.~~
 - ~~b. SMC 20.80.040.~~
 - ~~c. Chapter 20.80 SMC, Subchapter 4, Wetlands.~~
 - ~~d. SMC 20.80.310.~~
 - ~~e. SMC 20.80.320.~~
 - ~~f. SMC 20.80.330.~~
 - ~~g. SMC 20.80.340.~~
 - ~~h. SMC 20.80.350.~~~~
- ~~2. The provisions of Chapter 20.80 SMC, Critical Areas, must be factored into decisions regarding development within the regulated shoreline and associated critical areas.~~
- ~~3. All shoreline uses and activities shall be located, designed, constructed, and managed to protect or at least not adversely affect those natural features which are valuable, fragile, or~~

unique in the region. They should also facilitate the appropriate intensity of human use of such features, including but not limited to:

- a. Wetlands, including but not limited to marshes, bogs, and swamps;
- b. Fish and wildlife habitats, including streams and wetlands, nesting areas and migratory routes, spawning areas, and the presence of proposed or listed species;
- c. Natural or manmade vistas or features;
- d. Flood hazard areas; and/or
- e. Geologically hazardous areas, including erosion, landslide, and seismic hazard areas.

4. The standards of the City of Shoreline's critical area regulations shall apply within the shoreline jurisdiction, where critical areas are present. If there are any conflicts or unclear distinctions between the Master Program and the City's critical areas regulations, the most restrictive requirements apply as determined by the City.

B. Floodplain Management. The following policies and regulations must be factored into decisions regarding all flood management planning and development within that portion of the 100-year floodplain that falls within Shoreline's shoreline jurisdiction (within 200 feet of OHWM). Floodplain management involves actions taken with the primary purpose of preventing or mitigating damage due to flooding. Floodplain management can involve planning and zoning to control development, either to reduce risks to human life and property, or to prevent development from contributing to the severity of flooding. Floodplain management can also address the design of developments to reduce flood damage and the construction of flood controls, such as dikes, dams, engineered floodways, and bioengineering.

Policy

- 1. Flood management planning should be undertaken in a coordinated manner among affected property owners and public agencies and should consider the entire coastal system. This planning should consider off-site impacts such as erosion, accretion, and/or flood damage that might occur if shore protection structures are constructed.
- 2. Nonstructural control solutions are preferred over structural flood control devices, and should be used wherever possible when control devices are needed. Nonstructural controls include such actions as prohibiting or limiting development in areas that are historically flooded or limiting increases in peak flow runoff from new upland development. Structural solutions to reduce shoreline damage should be allowed only after it is demonstrated that nonstructural solutions would not be able to reduce the damage.
- 3. Substantial stream channel modification, realignment, and straightening should be discouraged as a means of flood protection.

4.—Where possible, public access should be integrated into the design of publicly financed flood management facilities.

5.—The City supports the protection and preservation of the aquatic environment and the habitats it provides, and advocates balancing these interests with the City's intention to ensure protection of life and property from damage caused by flooding.

6.—Development should avoid potential channel migration impacts.

Regulations

1.—The City shall require and utilize the following information as appropriate during its review of shoreline flood management projects and programs:

a.—Stream channel hydraulics and floodway characteristics, up and downstream from the project area;

b.—Existing shoreline stabilization and flood protection works within the area;

c.—Physical, geological, and soil characteristics of the area;

d.—Biological resources and predicted impact to coastal ecology, including fish, vegetation, and animal habitat;

e.—Predicted impact upon area, shore, and hydraulic processes, adjacent properties, and shoreline and water uses; and/or

f.—Analysis of alternative flood protection measures, both nonstructural and structural.

2.—The City shall require engineered design of flood protection works where such projects may cause interference with normal geohydraulic processes, off-site impacts, or adverse effects to shoreline resources and uses. Nonstructural methods of flood protection shall be preferred over structural solutions when the relocation of existing shoreline development is not feasible.

C.—**Wetlands.** Presently, the wetlands within the City's shoreline jurisdiction have not been delineated and rated using current State standards. As the wetland category combined with the habitat functions rating defines the required buffers using current State standards, the requirements of this section apply to any new development application in the vicinity of an associated wetland. At that time, the wetland and its buffers would need to be categorized and delineated and the activities would be regulated using the following standards.

1.—**Policy.**

a.—Wetland ecosystems serve many important ecological and environmental functions, which are beneficial to the public welfare. Such functions include, but are not limited to, providing food, breeding, nesting and/or rearing habitat for fish and wildlife; recharging and discharging ground water; contributing to stream flow during low flow periods; stabilizing stream banks and shorelines; storing storm and floodwaters to reduce flooding and erosion; and improving water

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quality through biofiltration, adsorption, and retention and transformation of sediments, nutrients, and toxicants; as well as education and scientific research.

b.—Wetland areas should be identified according to established identification and delineation procedures and provided appropriate protection consistent with the policies and regulations of this Master Program.

c.—The greatest protection should be provided to wetlands of exceptional resource value, which are defined as those wetlands that include rare, sensitive, or irreplaceable systems such as:

i.—Documented or potential habitat for an endangered, threatened, or sensitive species;

ii.—High quality native wetland systems as determined by the Washington State Natural Heritage Program;

iii.—Significant habitat for fish or aquatic species as determined by the appropriate State resource agency;

iv.—Diverse wetlands exhibiting a high mixture of wetland classes and subclasses as defined in the U.S. Fish and Wildlife Service classification system;

v.—Mature forested swamp communities; and/or

vi.—Sphagnum bogs or fens.

d.—A wetland buffer of adequate width should be maintained between a wetland and the adjacent development to protect the functions and integrity of the wetland.

e.—The width of the established buffer zone should be based upon the functions and sensitivity of the wetland, the characteristics of the existing buffer, and the potential impacts associated with the adjacent land use.

f.—All activities that could potentially affect wetland ecosystems should be controlled both within the wetland and the buffer zone to prevent adverse impacts to the wetland functions.

g.—No wetland alteration should be authorized unless it can be shown that the impact is both unavoidable and necessary, and that resultant impacts are offset through the deliberate restoration, creation, or enhancement of wetlands.

h.—Wetland restoration, creation, and enhancement projects should result in no net loss of wetland acreage and functions. Where feasible, wetland quality should be improved.

i.—Wetlands that are impacted by activities of a temporary nature should be restored immediately upon project completion.

j.—In-kind replacement of functional wetland values is preferred. Where in-kind replacement is not feasible or practical due to the characteristics of the existing wetland, substitute ecological resources of equal or greater value should be provided.

~~k.— On-site replacement of wetlands is preferred. Where on-site replacement of a wetland is not feasible or practical due to characteristics of the existing location, replacement should occur within the same watershed and in as close proximity to the original wetland as possible.~~

~~l.— Where possible, wetland restoration, creation, and enhancement projects should be completed prior to wetland alteration. In all other cases, replacement should be completed prior to use or occupancy of the activity or development.~~

~~m.— Applicants should develop comprehensive mitigation plans to ensure long-term success of the wetland restoration, creation, or enhancement project. Such plans should provide for sufficient monitoring and contingencies to ensure wetland persistence.~~

~~n.— Applicants should demonstrate sufficient scientific expertise, supervisory capability, and financial resources to complete and monitor the mitigation project.~~

~~o.— Proposals for restoration, creation, or enhancement should be coordinated with appropriate resource agencies to ensure adequate design and consistency with other regulatory requirements.~~

~~p.— Activities should be prevented in wetland buffer zones except where such activities have no adverse impacts on wetland ecosystem functions.~~

~~q.— Wetland buffer zones should be retained in their natural condition unless revegetation is necessary to improve or restore the buffer.~~

~~r.— Land use should be regulated to avoid adverse effects on wetlands and maintain the functions and values of wetlands throughout Shoreline, and review procedures should be established for development proposals in and adjacent to wetlands.~~

2.— Regulations.

~~a.— **Identification and Delineation.** Identification of wetlands and delineation of their boundaries pursuant to this chapter shall be done in accordance with the approved Federal wetland delineation manual and applicable regional supplements. All areas within the City meeting the wetland designation criteria in that procedure are hereby designated critical areas and are subject to the provisions of this chapter. Wetland delineations are valid for five years; after such date the City shall determine whether a revision or additional assessment is necessary.~~

~~b.— **Rating.** Wetlands shall be rated according to the Washington Department of Ecology wetland rating system, as set forth in the Washington State Wetland Rating System for Western Washington (Ecology Publication #04-06-025, or as revised and Wetlands Guidance for Small Cities Western approved by Ecology), which contains the definitions and methods for determining whether the criteria below are met.~~

i. ~~**Category I.** Category I wetlands are: (1) relatively undisturbed estuarine wetlands larger than one acre; (2) wetlands that are identified by scientists of the Washington Natural Heritage Program/DNR as high quality wetlands; (3) bogs; (4) mature and old-growth forested wetlands larger than one acre; (5) wetlands in undisturbed coastal lagoons; and (6) wetlands that perform many functions well (scoring 70 points or more). These wetlands: (1) represent unique or rare wetland types; (2) are more sensitive to disturbance than most wetlands; (3) are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or (4) provide a high level of functions.~~

ii. ~~**Category II.** Category II wetlands are: (1) estuarine wetlands smaller than one acre, or disturbed estuarine wetlands larger than one acre; (2) interdunal wetlands larger than one acre; (3) disturbed coastal lagoons or (4) wetlands with a moderately high level of functions (scoring between 51 and 69 points).~~

iii. ~~**Category III.** Category III wetlands are: (1) wetlands with a moderate level of functions (scoring between 30 and 50 points); and (2) interdunal wetlands between 0.1 and one acre. Wetlands scoring between 30 and 50 points generally have been disturbed in some ways and are often less diverse or more isolated from other natural resources in the landscape than Category II wetlands.~~

iv. ~~**Category IV.** Category IV wetlands have the lowest levels of functions (scoring fewer than 30 points) and are often heavily disturbed. These are wetlands that we should be able to replace, or in some cases to improve. However, experience has shown that replacement cannot be guaranteed in any specific case. These wetlands may provide some important functions, and should be protected to some degree.~~

c. ~~**Illegal Modifications.** Wetland rating categories shall not change due to illegal modifications made by the applicant or with the applicant's knowledge.~~

3. Regulated Activities.

a. ~~For any regulated activity, a critical areas report (see SMC 20.80.110) may be required to support the requested activity.~~

b. ~~The following activities are regulated if they occur in a regulated wetland or its buffer:~~

i. ~~The removal, excavation, grading, or dredging of soil, sand, gravel, minerals, organic matter, or material of any kind;~~

ii. ~~The dumping of, discharging of, or filling with any material;~~

iii. ~~The draining, flooding, or disturbing of the water level or water table;~~

iv. ~~Pile driving;~~

v. ~~The placing of obstructions;~~

- vi. ~~The construction, reconstruction, demolition, or expansion of any structure;~~
- vii. ~~The destruction or alteration of wetland vegetation through clearing, harvesting, shading, intentional burning, or planting of vegetation that would alter the character of a regulated wetland;~~
- viii. ~~“Class IV—General Forest Practices” under the authority of the “1992 Washington State Forest Practices Act Rules and Regulations,” WAC 222-12-030, or as thereafter amended;~~
~~and/or~~
- ix. ~~Activities that result in:~~
 - ~~(A) A significant change of water temperature;~~
 - ~~(B) A significant change of physical or chemical characteristics of the sources of water to the wetland;~~
 - ~~(C) A significant change in the quantity, timing, or duration of the water entering the wetland;~~
~~and/or~~
 - ~~(D) The introduction of pollutants.~~
- c. ~~**Subdivisions.** The subdivision and/or short subdivision of land in wetlands and associated buffers are subject to the following:~~
 - ~~i. Land that is located wholly within a wetland or its buffer may not be subdivided; and~~
 - ~~ii. Land that is located partially within a wetland or its buffer may be subdivided; provided, that an accessible and contiguous portion of each new lot is:~~
 - ~~(A) Located outside of the wetland and its buffer; and~~
 - ~~(B) Meets the minimum lot size requirements of SMC Table 20.50.020(1).~~
- d. ~~**Activities Allowed in Wetlands.** The activities listed below are allowed in wetlands. These activities do not require submission of a critical area report, except where such activities result in a loss of the functions and values of a wetland or wetland buffer. These activities include:~~
 - ~~i. Those activities and uses conducted pursuant to the Washington State Forest Practices Act and its rules and regulations, WAC 222-12-030, where State law specifically exempts local authority, except those developments requiring local approval for Class 4—General Forest Practice Permits (conversions) as defined in Chapter 76.09 RCW and Chapter 222-12 WAC.~~
 - ~~ii. Conservation or preservation of soil, water, vegetation, fish, shellfish, and/or other wildlife that does not entail changing the structure or functions of the existing wetland.~~
 - ~~iii. The harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops and provided the harvesting does not require tilling of soil, planting of crops, chemical applications, or alteration of the wetland by changing existing topography, water conditions, or water sources.~~

~~iv.—Drilling for utilities/utility corridors under a wetland, with entrance/exit portals located completely outside of the wetland buffer; provided, that the drilling does not interrupt the ground water connection to the wetland or percolation of surface water down through the soil column. Specific studies by a hydrologist are necessary to determine whether the ground water connection to the wetland or percolation of surface water down through the soil column will be disturbed.~~

~~v.—Enhancement of a wetland through the removal of nonnative invasive plant species. Removal of invasive plant species shall be restricted to hand removal unless permits from the appropriate regulatory agencies have been obtained for approved biological or chemical treatments. All removed plant material shall be taken away from the site and disposed of appropriately. Plants that appear on the Washington State Noxious Weed Control Board list of noxious weeds must be handled and disposed of according to a noxious weed control plan appropriate to that species. Revegetation with appropriate native species at natural densities is allowed in conjunction with removal of invasive plant species.~~

~~vi.—Educational and scientific research activities.~~

~~vii.—Normal and routine maintenance and repair of any existing public or private facilities within an existing right-of-way; provided, that the maintenance or repair does not expand the footprint of the facility or right-of-way.~~

4.—Wetland Buffers.

~~a.—**Buffer Requirements.** The standard buffer widths in Table 20.230.031 have been established in accordance with the best available science. They are based on the category of wetland and the habitat score as determined by a qualified wetland professional using the Washington State Wetland Rating System for Western Washington.~~

~~i.—The use of the standard buffer widths requires the implementation of the measures in Table 20.230.032, where applicable, to minimize the impacts of the adjacent land uses.~~

~~ii.—If an applicant chooses not to apply the mitigation measures in Table 20.230.032, then a 33 percent increase in the width of all buffers is required. For example, a 75-foot buffer with the mitigation measures would be a 100-foot buffer without them.~~

~~iii.—The standard buffer widths assume that the buffer is vegetated with a native plant community appropriate for the ecoregion. If the existing buffer is unvegetated, sparsely vegetated, or vegetated with invasive species that do not perform needed functions, the buffer should either be planted to create the appropriate plant community or the buffer should be widened to ensure that adequate functions of the buffer are provided.~~

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iv.— Additional buffer widths are added to the standard buffer widths. For example, a Category I wetland scoring 32 points for habitat function would require a buffer of 225 feet (75 + 150).

Table 20.230.031 Wetland Buffer Requirements for Western Washington

Wetland Category	Standard Buffer Width	Additional buffer width if wetland scores 21—25 habitat points	Additional buffer width if wetland scores 26—29 habitat points	Additional buffer width if wetland scores 30—36 habitat points
Category I: Based on total score	75 ft	Add 30 ft	Add 90 ft	Add 150 ft
Category I: Forested	75 ft	Add 30 ft	Add 90 ft	Add 150 ft
Category I: Estuarine	150 ft	NA	NA	NA
Category II: Based on score	75 ft	Add 30 ft	Add 90 ft	Add 150 ft
Category III (all)	60 ft	Add 45 ft	Add 105 ft	NA
Category IV (all)	40 ft	NA	NA	NA

**Table 20.230.032 Required measures to minimize impacts to wetlands
(Measures are required, where applicable to a specific proposal)**

Disturbance	Required Measures to Minimize Impacts
Lights	Direct lights away from wetland.
Noise	Locate activity that generates noise away from wetland. If warranted, enhance existing buffer with native vegetation plantings adjacent to noise source. For activities that generate relatively continuous, potentially disruptive noise, such as certain heavy industry or mining, establish an additional 10 ft heavily vegetated buffer strip immediately adjacent to the outer wetland buffer.
Toxic runoff	Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered. Establish covenants limiting use of pesticides within 150 ft of wetland. Apply integrated pest management.
Stormwater runoff	Retrofit stormwater detention and treatment for roads and existing adjacent development.

**Table 20.230.032 Required measures to minimize impacts to wetlands
(Measures are required, where applicable to a specific proposal)**

Disturbance	Required Measures to Minimize Impacts
	Prevent channelized flow from lawns that directly enters the buffer. Use Low Intensity Development techniques (per PSAT publication on LID techniques).
Change in water regime	Infiltrate or treat, detain, and disperse into buffer new runoff from impervious surfaces and new lawns.
Pets and human disturbance	Use privacy fencing OR plant dense vegetation to delineate buffer edge and to discourage disturbance using vegetation appropriate for the ecoregion. Place wetland and its buffer in a separate tract or protect with a conservation easement.
Dust	Use best management practices to control dust.
Disruption of corridors or connections	Maintain connections to off-site areas that are undisturbed. Restore corridors.

v. ~~**Increased Wetland Buffer Area Width.** Buffer widths shall be increased on a case-by-case basis as determined by the Administrator when a larger buffer is necessary to protect wetland functions and values. This determination shall be supported by appropriate documentation showing that it is reasonably related to protection of the functions and values of the wetland. The documentation must include, but not be limited to, the following criteria:~~

~~(A) The wetland is used by a plant or animal species listed by the Federal government or the State as endangered, threatened, candidate, sensitive, monitored or documented priority species or habitats, or essential or outstanding habitat for those species or has unusual nesting or resting sites such as heron rookeries or raptor nesting trees; or~~

~~(B) The adjacent land is susceptible to severe erosion, and erosion control measures will not effectively prevent adverse wetland impacts; or~~

~~(C) The adjacent land has minimal vegetative cover or slopes greater than 30 percent.~~

vi. ~~Buffer averaging to improve wetland protection may be permitted when all of the following conditions are met:~~

~~(A) The wetland has significant differences in characteristics that affect its habitat functions, such as a wetland with a forested component adjacent to a degraded emergent component or a “dual-rated” wetland with a Category I area adjacent to a lower rated area;~~

~~(B) The buffer is increased adjacent to the higher functioning area of habitat or more sensitive portion of the wetland and decreased adjacent to the lower functioning or less sensitive portion as demonstrated by a critical areas report from a qualified wetland professional;~~

~~(C) The total area of the buffer after averaging is equal to the area required without averaging;~~
and

~~(D) The buffer at its narrowest point is never less than either three fourths of the required width or 75 feet for Category I and II, 50 feet for Category III, and 25 feet for Category IV, whichever is greater.~~

~~vii. Averaging through a shoreline variance may be permitted when all of the following are met:~~

~~(A) There are no feasible alternatives to the site design that could be accomplished without buffer averaging;~~

~~(B) The averaged buffer will not result in degradation of the wetland’s functions and values as demonstrated by a critical areas report from a qualified wetland professional;~~

~~(C) The total buffer area after averaging is equal to the area required without averaging; and~~

~~(D) The buffer at its narrowest point is never less than either three fourths of the required width or 75 feet for Category I and II, 50 feet for Category III and 25 feet for Category IV, whichever is greater.~~

~~b. To facilitate long-range planning using a landscape approach, the Administrator may identify and preassess wetlands using the rating system and establish appropriate wetland buffer widths for such wetlands. The Administrator will prepare maps of wetlands that have been preassessed in this manner.~~

~~c. **Measurement of Wetland Buffers.** All buffers shall be measured perpendicular from the wetland boundary as surveyed in the field. The buffer for a wetland created, restored, or enhanced as compensation for approved wetland alterations shall be the same as the buffer required for the category of the created, restored, or enhanced wetland. Only fully vegetated buffers will be considered. Lawns, walkways, driveways, and other mowed or paved areas will not be considered buffers or included in buffer area calculations.~~

~~d. **Buffers on Mitigation Sites.** All mitigation sites shall have buffers consistent with the buffer requirements of this chapter. Buffers shall be based on the expected or target category of the proposed wetland mitigation site.~~

e. ~~**Buffer Maintenance.** Except as otherwise specified or allowed in accordance with this chapter, wetland buffers shall be retained in an undisturbed or enhanced condition. In the case of compensatory mitigation sites, removal of invasive nonnative weeds is required for the duration of the mitigation bond (subsection (C)(6)(h)(ii)(A)(8) of this section).~~

f. ~~**Impacts to Buffers.** Requirements for the compensation for impacts to buffers are outlined in subsection (C)(6) of this section.~~

g. ~~**Overlapping Critical Area Buffers.** If buffers for two contiguous critical areas overlap (such as buffers for a stream and a wetland), the wider buffer applies.~~

h. ~~**Allowed Buffer Uses.** The following uses may be allowed within a wetland buffer in accordance with the review procedures of this chapter, provided they are not prohibited by any other applicable law and they are conducted in a manner so as to minimize impacts to the buffer and adjacent wetland:~~

i. ~~**Conservation and Restoration Activities.** Conservation or restoration activities aimed at protecting the soil, water, vegetation, or wildlife.~~

ii. ~~**Passive Recreation.** Passive recreation facilities designed and in accordance with an approved critical area report, including:~~

(A) ~~Walkways and trails; provided, that those pathways are limited to minor crossings having no adverse impact on water quality. They should be generally parallel to the perimeter of the wetland, located only in the outer 25 percent of the wetland buffer area, and located to avoid removal of significant trees. They should be limited to pervious surfaces no more than five feet in width for pedestrian use only. Raised boardwalks utilizing nontreated pilings may be acceptable; and/or~~

(B) ~~Wildlife viewing structures.~~

iii. ~~Educational and scientific research activities.~~

iv. ~~Normal and routine maintenance and repair of any existing public or private facilities within an existing right-of-way; provided, that the maintenance or repair does not increase the footprint or use of the facility or right-of-way.~~

v. ~~The harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops, and provided the harvesting does not require tilling of soil, planting of crops, chemical applications, or alteration of the wetland by changing existing topography, water conditions, or water sources.~~

vi. ~~Drilling for utilities/utility corridors under a buffer, with entrance/exit portals located completely outside of the wetland buffer boundary; provided, that the drilling does not interrupt the ground water connection to the wetland or percolation of surface water down through the~~

soil column. Specific studies by a hydrologist are necessary to determine whether the ground water connection to the wetland or percolation of surface water down through the soil column is disturbed.

vii.—~~Enhancement of a wetland buffer through the removal of nonnative invasive plant species. Removal of invasive plant species shall be restricted to hand removal. All removed plant material shall be taken away from the site and disposed of appropriately. Plants that appear on the Washington State Noxious Weed Control Board list of noxious weeds must be handled and disposed of according to a noxious weed control plan appropriate to that species. Revegetation with appropriate native species at natural densities is allowed in conjunction with removal of invasive plant species.~~

viii.—**Stormwater Management Facilities.** ~~Stormwater management facilities are limited to stormwater dispersion outfalls and bioswales. They may be allowed within the outer 25 percent of the buffer of Category III or IV wetlands only; provided, that:~~

~~(A) No other location is feasible;~~

~~(B) The location of such facilities will not degrade the functions or values of the wetland; and~~

~~(C) Stormwater management facilities are not allowed in buffers of Category I or II wetlands.~~

ix.—**Nonconforming Uses.** ~~Repair and maintenance of nonconforming uses or structures, where legally established within the buffer, provided they do not increase the degree of nonconformity.~~

i.—**Signs and Fencing of Wetlands and Buffers.**

i.—**Temporary Markers.** ~~The outer perimeter of the wetland buffer and the clearing limits identified by an approved permit or authorization shall be marked in the field with temporary “clearing limits” fencing in such a way as to ensure that no unauthorized intrusion will occur. The marking is subject to inspection by the Administrator prior to the commencement of permitted activities. This temporary marking shall be maintained throughout construction and shall not be removed until permanent signs, if required, are in place.~~

ii.—**Permanent Signs.** ~~As a condition of any permit or authorization issued pursuant to this chapter, the Administrator may require the applicant to install permanent signs along the boundary of a wetland or buffer.~~

~~(A) Permanent signs shall be made of an enamel-coated metal face and attached to a metal post or another nontreated material of equal durability. Signs must be posted at an interval of one per lot or every 50 feet, whichever is less, and must be maintained by the property owner in perpetuity. The signs shall be worded as follows or with alternative language approved by the Administrator:~~

~~Protected Wetland Area Do Not Disturb~~

~~Contact the City of Shoreline Regarding Uses, Restrictions, and Opportunities for Stewardship (B) — The provisions of subsection (C)(4)(i)(ii)(A) of this section may be modified as necessary to assure protection of sensitive features.~~

~~iii. — **Fencing.** Fencing installed as part of a proposed activity or as required in this subsection shall be designed so as to not interfere with species migration, including fish runs, and shall be constructed in a manner that minimizes impacts to the wetland and associated habitat.~~

~~**5. — Critical Area Report for Wetlands.**~~

~~a. — If the Administrator determines that the site of a proposed development includes, is likely to include, or is adjacent to a wetland, a wetland report, prepared by a qualified professional, shall be required. The expense of preparing the wetland report shall be borne by the applicant.~~

~~b. — **Minimum Standards for Wetland Reports.** The written report and the accompanying plan sheets shall contain the following information, at a minimum:~~

~~i. — The name and contact information of the applicant; the name, qualifications, and contact information for the primary author(s) of the wetland critical area report; a description of the proposal; identification of all the local, State, and/or Federal wetland-related permit(s) required for the project; and a vicinity map for the project.~~

~~ii. — A statement specifying the accuracy of the report and all assumptions made and relied upon.~~

~~iii. — Documentation of any fieldwork performed on the site, including field data sheets for delineations, rating system forms, baseline hydrologic data, etc.~~

~~iv. — A description of the methodologies used to conduct the wetland delineations, rating system forms, or impact analyses including references.~~

~~v. — Identification and characterization of all critical areas, wetlands, water bodies, shorelines, floodplains, and buffers on or adjacent to the proposed project area. For areas off site of the project site, estimate conditions within 300 feet of the project boundaries using the best available information.~~

~~vi. — For each wetland identified on site and within 300 feet of the project site provide: the wetland rating, including a description of and score for each function, per wetland ratings (subsection (C)(2)(b) of this section); required buffers; hydrogeomorphic classification; wetland acreage based on a professional survey from the field delineation (acreages for on-site portion and entire wetland area including off-site portions); Cowardin classification of vegetation communities; habitat elements; soil conditions based on site assessment and/or soil survey information; and to the extent possible, hydrologic information such as location and condition of~~

~~inlet/outlets (if they can be legally accessed), estimated water depths within the wetland, and estimated hydroperiod patterns based on visual cues (e.g., algal mats, drift lines, flood debris, etc.). Provide acreage estimates, classifications, and ratings based on entire wetland complexes, not only the portion present on the proposed project site.~~

~~vii.—A description of the proposed actions, including an estimation of acreages of impacts to wetlands and buffers based on the field delineation and survey and an analysis of site development alternatives, including a no-development alternative.~~

~~viii.—An assessment of the probable cumulative impacts to the wetlands and buffers resulting from the proposed development.~~

~~ix.—A description of reasonable efforts made to apply mitigation sequencing pursuant to Mitigation Sequencing (subsection (C)(6)(a) of this section) to avoid, minimize, and mitigate impacts to critical areas.~~

~~x.—A discussion of measures, including avoidance, minimization, and compensation, proposed to preserve existing wetlands and restore any wetlands that were degraded prior to the current proposed land-use activity.~~

~~xi.—A conservation strategy for habitat and native vegetation that addresses methods to protect and enhance on-site habitat and wetland functions.~~

~~c.—An evaluation of the functions of the wetland and adjacent buffer. Include reference for the method used and data sheets.~~

~~d.—A copy of the site plan sheet(s) for the project must be included with the written report and must include, at a minimum:~~

~~i.—Maps (to scale) depicting delineated and surveyed wetland and required buffers on site, including buffers for off-site critical areas that extend onto the project site; the development proposal; other critical areas; grading and clearing limits; areas of proposed impacts to wetlands and/or buffers (include square footage estimates);~~

~~ii.—A depiction of the proposed stormwater management facilities and outlets (to scale) for the development, including estimated areas of intrusion into the buffers of any critical areas. The written report shall contain a discussion of the potential impacts to the wetland(s) associated with anticipated hydroperiod alterations from the project; and~~

~~iii.—A depiction of the proposed stormwater management facilities and outlets (to scale) for the development, including estimated areas of intrusion into the buffers of any critical areas. The written report shall contain a discussion of the potential impacts to the wetland(s) associated with anticipated hydroperiod alterations from the project.~~

6.—Compensatory Mitigation.

~~a. **Mitigation Sequencing.** Before impacting any wetland or its buffer, an applicant shall demonstrate that the following actions have been taken. Actions are listed in the order of preference:~~

- ~~i. Avoid the impact altogether by not taking a certain action or parts of an action.~~
- ~~ii. Minimize impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts.~~
- ~~iii. Rectify the impact by repairing, rehabilitating, or restoring the affected environment.~~
- ~~iv. Reduce or eliminate the impact over time by preservation and maintenance operations.~~
- ~~v. Compensate for the impact by replacing, enhancing, or providing substitute resources or environments.~~
- ~~vi. Monitor the required compensation and take remedial or corrective measures when necessary.~~

~~b. **Requirements for Compensatory Mitigation.**~~

- ~~i. Compensatory mitigation for alterations to wetlands shall be used only for impacts that cannot be avoided or minimized and shall achieve equivalent or greater biologic functions. Compensatory mitigation plans shall be consistent with Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans (Version 1), Ecology Publication No. 06-06-011b, Olympia, WA, March 2006 or as revised.~~
- ~~ii. Mitigation ratios shall be consistent with subsection (C)(6)(g) of this section.~~
- ~~iii. Mitigation requirements may also be determined using the credit/debit tool described in “Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington: Operational Draft” (Ecology Publication No. 10-06-011, February 2011, or as revised) consistent with subsection (C)(6)(h) of this section.~~

~~c. **Compensating for Lost or Affected Functions.** Compensatory mitigation shall address the functions affected by the proposed project, with an intention to achieve functional equivalency or improvement of functions. The goal shall be for the compensatory mitigation to provide similar wetland functions as those lost, except when either:~~

- ~~i. The lost wetland provides minimal functions, and the proposed compensatory mitigation action(s) will provide equal or greater functions or will provide functions shown to be limiting within a watershed through a formal Washington State watershed assessment plan or protocol;~~
~~or~~
- ~~ii. Out-of-kind replacement of wetland type or functions will best meet watershed goals formally identified by the City, such as replacement of historically diminished wetland types.~~

d. **Preference of Mitigation Actions.** Methods to achieve compensation for wetland functions shall be approached in the following order of preference:

i. Restoration (reestablishment and rehabilitation) of wetlands.

ii. Creation (establishment) of wetlands on disturbed upland sites such as those with vegetative cover consisting primarily of nonnative species. This should be attempted only when there is an adequate source of water and it can be shown that the surface and subsurface hydrologic regime is conducive to the wetland community that is anticipated in the design.

iii. Enhancement of significantly degraded wetlands in combination with restoration or creation. Enhancement alone will result in a loss of wetland acreage and is less effective at replacing the functions lost. Enhancement should be part of a mitigation package that includes replacing the impacted area and meeting appropriate ratio requirements.

iv. **Preservation.** Preservation of high quality, at-risk wetlands as compensation is generally acceptable when done in combination with restoration, creation, or enhancement; provided, that a minimum of 1:1 acreage replacement is provided by reestablishment or creation. Preservation of high quality, at-risk wetlands and habitat may be considered as the sole means of compensation for wetland impacts when the following criteria are met:

(A) Wetland impacts will not have a significant adverse impact on habitat for listed fish, or other ESA listed species;

(B) There is no net loss of habitat functions within the watershed or basin;

(C) Mitigation ratios for preservation as the sole means of mitigation shall generally start at 20:1. Specific ratios should depend upon the significance of the preservation project and the quality of the wetland resources lost; and

(D) The impact area is small (generally less than one-half acre) and/or impacts are occurring to a low-functioning system (Category III or IV wetland).

All preservation sites shall include buffer areas adequate to protect the habitat and its functions from encroachment and degradation.

e. **Type and Location of Compensatory Mitigation.** Unless it is demonstrated that a higher level of ecological functioning would result from an alternative approach, compensatory mitigation for ecological functions shall be either in-kind and on-site, or in-kind and within the same stream reach, sub-basin, or drift cell (if estuarine wetlands are impacted). Compensatory mitigation actions shall be conducted within the same sub-drainage basin and on the site of the alteration except when all of the following apply:

i. There are no reasonable opportunities on-site or within the sub-drainage basin (e.g., on-site options would require elimination of high-functioning upland habitat), or opportunities on-site or

~~within the sub-drainage basin do not have a high likelihood of success based on a determination of the capacity of the site to compensate for the impacts. Considerations should include: anticipated replacement ratios for wetland mitigation, buffer conditions and proposed widths, available water to maintain anticipated hydrogeomorphic classes of wetlands when restored, proposed flood storage capacity, and potential to mitigate riparian fish and wildlife impacts (such as connectivity);~~

~~ii.— Off-site mitigation has a greater likelihood of providing equal or improved wetland functions than the impacted wetland; and~~

~~iii.— Off-site locations shall be in the same sub-drainage basin unless:~~

~~(A)— Established watershed goals for water quality, flood storage or conveyance, habitat, or other wetland functions have been established by the City and strongly justify location of mitigation at another site; or~~

~~(B)— Credits from a State-certified wetland mitigation bank are used as compensation, and the use of credits is consistent with the terms of the bank's certification.~~

~~iv.— The design for the compensatory mitigation project needs to be appropriate for its location (i.e., position in the landscape). Therefore, compensatory mitigation should not result in the creation, restoration, or enhancement of an atypical wetland. An atypical wetland refers to a compensation wetland (e.g., created or enhanced) that does not match the type of existing wetland that would be found in the geomorphic setting of the site (i.e., the water source(s) and hydroperiod proposed for the mitigation site are not typical for the geomorphic setting).~~

~~Likewise, it should not provide exaggerated morphology or require a berm or other engineered structures to hold back water. For example, excavating a permanently inundated pond in an existing seasonally saturated or inundated wetland is one example of an enhancement project that could result in an atypical wetland. Another example would be excavating depressions in an existing wetland on a slope, which would require the construction of berms to hold the water.~~

~~f.— **Timing of Compensatory Mitigation.** It is preferred that compensatory mitigation projects be completed prior to activities that will disturb wetlands. At the least, compensatory mitigation shall be completed immediately following disturbance and prior to use or occupancy of the action or development. Construction of mitigation projects shall be timed to reduce impacts to existing fisheries, wildlife, and flora.~~

~~i.— The Administrator may authorize a one-time temporary delay in completing construction or installation of the compensatory mitigation when the applicant provides a written explanation from a qualified wetland professional as to the rationale for the delay. An appropriate rationale would include identification of the environmental conditions that could produce a high probability~~

of failure or significant construction difficulties (e.g., project delay lapses past a fisheries window, or installing plants should be delayed until the dormant season to ensure greater survival of installed materials). The delay shall not create or perpetuate hazardous conditions or environmental damage or degradation, and the delay shall not be injurious to the health, safety, or general welfare of the public. The request for the temporary delay must include a written justification that documents the environmental constraints that preclude implementation of the compensatory mitigation plan. The justification must be verified and approved by the City.

g. Wetland Mitigation Ratios.

Category and Type of Wetland	Creation or Reestablishment	Rehabilitation	Enhancement	Preservation
Category I: Bog, Natural Heritage site	Not considered possible	6:1	Case by case	10:1
Category I: Mature forested	6:1	12:1	24:1	24:1
Category I: Based on functions	4:1	8:1	16:1	20:1
Category II	3:1	6:1	12:1	20:1
Category III	2:1	4:1	8:1	15:1
Category IV	1.5:1	3:1	6:1	10:1

h. Compensatory Mitigation Plan. When a project involves wetland and/or buffer impacts, a compensatory mitigation plan prepared by a qualified professional shall be required, meeting the following minimum standards:

Ratios for rehabilitation and enhancement may be reduced when combined with 1:1 replacement through creation or reestablishment. See Table 1a or 1b, Wetland Mitigation in Washington State — Part 1: Agency Policies and Guidance — Version 1 (Ecology Publication No. 06-06-011a, Olympia, WA, March 2006 or as revised).

i. Wetland Critical Area Report. A critical area report for wetlands must accompany or be included in the compensatory mitigation plan and include the minimum parameters described in the “Minimum Standards for Wetland Reports” section of this chapter.

ii. Compensatory Mitigation Report. The report must include a written report and plan sheets that must contain, at a minimum, the elements listed below. Full guidance can be found

~~in Wetland Mitigation in Washington State—Part 2: Developing Mitigation Plans (Version 1)
(Ecology Publication No. 06-06-011b, Olympia, WA, March 2006 or as revised).~~

~~(A) The written report must contain, at a minimum:~~

~~(1) The name and contact information of the applicant; the name, qualifications, and contact information for the primary author(s) of the compensatory mitigation report; a description of the proposal; a summary of the impacts and proposed compensation concept; identification of all the local, State, and/or Federal wetland-related permit(s) required for the project; and a vicinity map for the project;~~

~~(2) Description of how the project design has been modified to avoid, minimize, or reduce adverse impacts to wetlands;~~

~~(3) Description of the existing wetland and buffer areas proposed to be impacted. Include acreage (or square footage), water regime, vegetation, soils, landscape position, surrounding land uses, and functions. Also describe impacts in terms of acreage by Cowardin classification, hydrogeomorphic classification, and wetland rating, based on wetland ratings (subsection (C)(2)(b) of this section);~~

~~(4) Description of the compensatory mitigation site, including location and rationale for selection. Include an assessment of existing conditions: acreage (or square footage) of wetlands and uplands, water regime, sources of water, vegetation, soils, landscape position, surrounding land uses, and functions. Estimate future conditions in this location if the compensation actions are not undertaken (i.e., how would this site progress through natural succession?);~~

~~(5) A description of the proposed actions for compensation of wetland and upland areas affected by the project. Include overall goals of the proposed mitigation, including a description of the targeted functions, hydrogeomorphic classification, and categories of wetlands;~~

~~(6) A description of the proposed mitigation construction activities and timing of activities;~~

~~(7) A discussion of ongoing management practices that will protect wetlands after the project site has been developed, including proposed monitoring and maintenance programs (for remaining wetlands and compensatory mitigation wetlands);~~

~~(8) A bond estimate for the entire compensatory mitigation project, including the following elements: site preparation, plant materials, construction materials, installation oversight, maintenance twice per year for up to five years, annual monitoring field work and reporting, and contingency actions for a maximum of the total required number of years for monitoring; and~~

~~(9) Proof of establishment of notice on title for the wetlands and buffers on the project site, including the compensatory mitigation areas.~~

~~(B) The scaled plan sheets for the compensatory mitigation must contain, at a minimum:~~

~~(1) Surveyed edges of the existing wetland and buffers, proposed areas of wetland and/or buffer impacts, location of proposed wetland and/or buffer compensation actions;~~

~~(2) Existing topography, ground-processed, at two-foot contour intervals in the zone of the proposed compensation actions if any grading activity is proposed to create the compensation area(s). Also existing cross-sections of on-site wetland areas that are proposed to be impacted, and cross-section(s) (estimated one-foot intervals) for the proposed areas of wetland or buffer compensation;~~

~~(3) Surface and subsurface hydrologic conditions, including an analysis of existing and proposed hydrologic regimes for enhanced, created, or restored compensatory mitigation areas. Also, illustrations of how data for existing hydrologic conditions were used to determine the estimates of future hydrologic conditions;~~

~~(4) Conditions expected from the proposed actions on-site, including future hydrogeomorphic types, vegetation community types by dominant species (wetland and upland), and future water regimes;~~

~~(5) Required wetland buffers for existing wetlands and proposed compensation areas. Also, identify any zones where buffers are proposed to be reduced or enlarged outside of the standards identified in this chapter;~~

~~(6) A plant schedule for the compensation area, including all species by proposed community type and water regime, size and type of plant material to be installed, spacing of plants, typical clustering patterns, total number of each species by community type, timing of installation; and~~

~~(7) Performance standards (measurable standards reflective of years post-installation) for upland and wetland communities, monitoring schedule, and maintenance schedule and actions by each biennium.~~

~~i. **Buffer Mitigation Ratios.** Impacts to buffers shall be mitigated at a 1:1 ratio. Compensatory buffer mitigation shall replace those buffer functions lost from development.~~

20.230.040 Public access.

Public access to the shoreline is the physical ability of the general public to reach and touch the water's edge and/or the ability to have a view of the water and the shoreline from upland locations. There are a variety of types of public access, such as picnic areas, pathways and trails, promenades, bridges, street ends, ingress and egress, and parking.

A. Public Access Policies.

1. Public access provisions should be incorporated into all private and public developments. Exceptions may be considered for the following types of uses:
 - a. A single-family residence;
 - b. An individual multifamily structure containing four or less dwelling units; and/or
 - c. Where deemed inappropriate by the Director.
2. Development uses and activities on or near the shoreline should not impair or detract from the public's visual or physical access to the water.
3. Public access to the shoreline should be sensitive to the unique characteristics of the shoreline and should preserve the natural character and quality of the environment and adjacent wetlands; public access should assure no net loss of ecological functions.
4. Where appropriate, water-oriented public access should be provided as close as possible to the water's edge without adversely affecting a sensitive environment.
5. Except for access to the water, the preferred location for placement of public access trails is as close to the furthest landward edge of the native vegetation zone as practical. Public access facilities should provide auxiliary facilities, such as parking and sanitation, when appropriate, and shall be designed for accessibility by people with disabilities. Publicly owned shorelines should be limited to water-dependent or public recreation uses, otherwise such shorelines should remain protected open space.
6. Public access afforded by public right-of-way street ends adjacent to the shoreline should be preserved, maintained, and enhanced.
7. Public access should be designed to provide for public safety and to minimize potential impacts to private property and individual privacy. This may include providing a physical separation to reinforce the distinction between public and private space, providing adequate space, through screening with landscape planting or fences, or other means.
8. Public views from the shoreline upland areas should be enhanced and preserved. Enhancement of views should not be construed to mean excess removal of vegetation that partially impairs views.
9. Public access facilities should be constructed of environmentally friendly materials and support healthy natural processes, whenever financially feasible and possible.
10. Public access facilities should be maintained to provide a clean, safe experience, and to protect the environment.

B. Public Access Regulations.

1. Public access shall be required for all shoreline development and uses, except for a single-family residence or residential projects containing four or less dwelling units.

2. Requirement of public access to shorelines does not confer the right to enter upon or cross private property, except for dedicated and marked public easements.
3. A shoreline development or use that does not provide public access may be authorized provided the applicant demonstrates and the Director determines that one or more of the following provisions apply:
 - a. Unavoidable health or safety hazards to the public exist that cannot be prevented by any feasible means;
 - b. Security requirements cannot be satisfied through the application of alternative design features or other solutions;
 - c. The cost of providing the access, easement, or an alternative amenity is unreasonably disproportionate to the total long-term cost of the proposed development;
 - d. Unacceptable environmental harm, such as damage to fish spawning areas, will result from the public access that cannot be mitigated; and/or
 - e. Significant conflict between the proposed access and adjacent uses would occur and cannot be mitigated.
4. The applicant must also demonstrate that all reasonable means to public access have been exhausted, including but not limited to:
 - a. Regulating access by such means as limiting use to daylight hours;
 - b. Designing separation of uses and activities with such means as fences, terracing, hedges, or landscaping; and/or
 - c. Providing access that is physically separated from the proposal, such as a nearby street end, an off-site viewpoint, or a trail system.
5. Public access sites shall be made barrier free for people with disabilities.
6. Public access sites shall be connected directly to the nearest public street.
7. Required public access sites shall be fully developed and available for public use at the time of occupancy or use of the development or activity.
8. Public access easements and permit conditions shall be recorded on the deed where applicable or on the face of a plat or short plat as a condition running with the land. Said recording with the King County Recorder's office shall occur at the time of permit approval. ~~(RCW 58.17.110).~~
9. The standard Washington State approved logo and other approved signs that indicate the public's right of access and hour of access shall be constructed, installed, and maintained by the applicant in conspicuous locations at public access sites. Signs controlling or restricting public access may be approved as a condition of permit approval.

10. Development on or over the water shall be constructed as far landward as possible to avoid interference with views from surrounding properties to the shoreline and adjoining waters.

11. Physical public access shall be designed to prevent significant impacts to natural systems by employing low impact development techniques.

Subchapter 2.

Specific Shoreline Use Policies and Regulations

20.230.070 General.

Specific shoreline use provisions are more detailed than those listed in general policies and regulations. These use policies and regulations apply to the identified use categories and provide a greater level of detail for uses and their impacts. The policies establish the shoreline management principles that apply to each use category and serve as a bridge between the various elements listed in SMC 20.200.040 and the use regulations that follow.

This subchapter also includes those activities that modify the configuration or qualities of the shoreline area. Shoreline modification activities are, by definition, undertaken in support of or in preparation for a permitted shoreline use. Typically, shoreline modification activities relate to construction of a physical element such as a breakwater, dredged basins, landfilling, etc., but they can include other actions such as clearing, grading, application of chemicals, etc.

Shoreline modification policies and regulations are intended to prevent, reduce, and mitigate the negative environmental impacts of proposed shoreline modifications consistent with the goals of the Shoreline Management Act. A proposed development must meet all of the regulations for both applicable uses and activities as well as the general and environment designation regulations.

The following policies and regulations apply to specific types of development that may be proposed in the shoreline jurisdiction of the City. A proposal can consist of more than one type of development. In addition, all specific shoreline development must be consistent with the following shoreline environmental designations; the goals and objectives of Chapter 20.200 SMC; ~~and~~ the general policies and regulations contained in Chapter 20.230 SMC, Subchapter 1-; and the critical areas regulations contained in Chapter 20.240 SMC.

20.230.080 Shoreline environmental designations. ~~— Map included in Appendix D, page 205.~~¹

Aquatic Environment (A). Encompasses all submerged lands from OHWM to the middle of Puget Sound. The purpose of this designation is to protect, restore, and manage the unique characteristics and resources of the areas waterward of the ordinary high water mark. New over-water structures are allowed only for water-dependent uses, public access, or ecological restoration and must be limited to the minimum necessary to support the structure's intended use.

Urban Conservancy Environment (UC). The purpose of this designation is to protect and restore relatively undeveloped or unaltered shorelines to maintain open space, floodplains, or habitat, while allowing a variety of compatible uses. This designation shall apply to shorelines that retain important ecological functions, even if partially altered. These shorelines are suitable for low intensity development, uses that are a combination of water-related or water enjoyment uses, or uses that allow substantial numbers of people access to the shoreline. Any undesignated shorelines are automatically assigned an urban conservancy designation.

Shoreline Residential Environment (SR). The purpose of this designation is to accommodate residential development and accessory structures that are consistent with this Shoreline Master Program. This designation shall apply to shorelines that do not meet the criteria for urban conservancy and that are characterized by single-family or multifamily residential development or are planned and platted for residential development.

Waterfront Residential Environment (WR). The purpose of this designation is to distinguish between residential portions of the coastline where natural and manmade features preclude building within the shoreline jurisdiction and the section along 27th Avenue NW where residential properties directly abut the Puget Sound.

Characteristics of 27th Avenue NW include:

- Only fully established residential property in the City of Shoreline directly abutting the Puget Sound;
- Substantial number of legally existing nonconforming lots and nonconforming structures;
- Exposure to high energy wind and wave action;

Fully armored shoreline prior to December 4, 1969, and residences occupied prior to

- January 1, 1992; and

Failure of an individual bulkhead would cause adverse effect on subject property as well as

- neighboring properties.

These unique circumstances and considerations warrant different regulations for 27th Avenue NW as compared to existing residential property that is cut off from the shoreline by bluffs and railroad tracks (UC and SR), and potential new residential properties in the Point Wells designations (PW and PWC).

Point Wells Urban Environment (PW). The purpose of this designation is to accommodate higher density uses while protecting existing ecological functions and restoring ecological functions that have been degraded.

Point Wells Urban Conservancy Environment (PWC). The purpose of this designation is to distinguish between differing levels of potential and existing ecological function within the Point Wells environment, and regulate uses and public access requirements appropriately.

SMC 20.230.081 Permitted Uses and Modifications.

Uses that are allowed in Tables 20.40.120 through 20.40.1650 are permitted uses in accordance with the underlying zone, this chapter, and the provisions of ~~the~~this Shoreline Master Program.

P = Permitted. Permitted uses may require shoreline substantial development permits and any other permits required by the Shoreline Municipal Code and/or other regulatory agencies.

C = Conditional Use. Conditional uses require shoreline conditional use permit and may require other permits required by the Shoreline Municipal Code and/or other regulatory agencies.

X = Prohibited.

Table 20.230.081 Permitted Uses and Modifications within the Shorelines

	<i>Shoreline Environments</i>					
Shoreline Use	Aquatic	Urban Conservancy	Shoreline Residential	Waterfront Residential	PW Urban Conservancy	PW Urban
Agriculture	X	X	X	X	X	X
Aquaculture	C	X	X	X	X	X
Boating Facilities (Boat Hoists and	P ¹	P: Boat launching ramps open to the public	P: Joint use boat launching ramps	P: Joint use boat launching ramps	X	P: Boat launching ramps open to the public

Shoreline Master Program - Attachment A

Table 20.230.081 Permitted Uses and Modifications within the Shorelines

	<i>Shoreline Environments</i>					
Shoreline Use	Aquatic	Urban Conservancy	Shoreline Residential	Waterfront Residential	PW Urban Conservancy	PW Urban
Launching Ramps)						
Nonresidential Development	X	X	X	X	P	P
Forest Practices	X	X	X	X	X	X
Industrial Development	X	X	X	X	P: Existing	P: Existing C: Expansion
In-Stream Structures	P ¹	P: Part of a fish habitat enhancement or a watershed restoration project	P: Part of a fish habitat enhancement or a watershed restoration project	P: Part of a fish habitat enhancement or a watershed restoration project	P: Part of a fish habitat enhancement or a watershed restoration project	P: Part of a fish habitat enhancement or a watershed restoration project
Mining	X	X	X	X	X	X
Mooring	P	X	X	X	X	X
Recreation Use (Water-related)	C: Water-dependent only	P	P	P	P: Limit to low intensity uses, passive uses	P
Recreation Facilities	C ⁹	P	P	P	P: Limit to low intensity uses, passive uses	P

Shoreline Master Program - Attachment A

Table 20.230.081 Permitted Uses and Modifications within the Shorelines

	<i>Shoreline Environments</i>					
Shoreline Use	Aquatic	Urban Conservancy	Shoreline Residential	Waterfront Residential	PW Urban Conservancy	PW Urban
Residential Developments	X	P	P	P	P	P
Signs	X ⁶	P	P	P	P	P
Permanent Solid Waste Storage or Transfer Facilities	X	X	X	X	X	X
Transportation Facilities (Roads and Bridges)	X	C	P	P	C	P
Transportation Facilities ³ (Railroads)	P	P	P	P	P	P
Utilities	C	P: Underground facilities C: Aboveground facilities	P: Underground facilities C: Aboveground facilities	P: Underground facilities C: Aboveground facilities	P: Underground facilities C: Aboveground facilities	P: Underground facilities C: Aboveground facilities
Unclassified Uses	C	C	C	C	C	C

Shoreline Master Program - Attachment A

Table 20.230.081 Permitted Uses and Modifications within the Shorelines

Shoreline Modifications	Aquatic	Urban Conservancy	Shoreline Residential	Waterfront Residential	PW Urban Conservancy	PW Urban
Breakwaters, Jetties, Groins, and Weirs	C ¹	X	X	X	X	X
Dredging	P ⁴ C: Related to navigation for PWU	P ⁴	P ⁴	P ⁴	P ⁴	P ⁴
Dredging Material Disposal	C	P ⁵	P ⁵	P ⁵	P ⁵	P ⁵
Dune Modification	X	X	X	X	X	X
Piers and Docks	P ¹	P: Public	P: Joint use	P: Joint use	X	P: Existing associated with public use P: Public piers or docks C: Expansion of existing with water oriented industrial use
Structural Flood Hazard Reduction	X	X	X	X	X	X

Shoreline Master Program - Attachment A

Table 20.230.081 Permitted Uses and Modifications within the Shorelines

Shoreline Modifications	Aquatic	Urban Conservancy	Shoreline Residential	Waterfront Residential	PW Urban Conservancy	PW Urban
(Dikes and Levees)						
Soft-Shore Stabilization	P ¹	P	P	P	P: With utilities	P
Repair, Replacement, and Maintenance of Existing Hard-Shore Armoring	P	P	P	P ⁸	P	P
Hard Shoreline Armoring where None Previously Existed	X	C	C	C	X	C
Land Disturbing Activities	X	P ³	P ³	P ³	P ³	P ³
Landfilling	C ⁴	C ³	C ¹	C ¹	C ³	C ³
Shoreline Habitat and Natural Systems Enhancement Projects	P	P	P	P	P	P
Marinas	X	X	X	X	X	X

- ¹ Subject to the use limitations and permit requirements of the abutting upland shoreline environment designation.
- ² The City recognizes the Federal preemption for local permitting per the ICC Termination Act of 1995, 49 U.S.C. § 10501(b); however, for the purposes of coastal zone management consistency the railroad company would be required to comply with the policies of the City of Shoreline’s SMP.
- ³ For activities associated with shoreline restoration or remediation; or limited if associated with public access improvement and allowed shoreline development.
- ⁴ For activities associated with shoreline or aquatic restoration or remediation.
- ⁵ For shoreline habitat and natural systems enhancement, fish habitat enhancement, or watershed restoration project.
- ⁶ Signs required by regulatory agencies for navigational operation, safety and direction purposes allowed in aquatic environment per SMC 20.230.230(B)(1).
- ⁷ Limited to water-dependent, public access, or shoreline stabilization activities.
- ⁸ This includes replacement.
- ⁹ Refer to SMC 20.230.130 for conditions.

SMC 20.30.082 Native Conservation Area and Building Setbacks.

The term “native conservation area” (NVCA) applies to areas where the shoreline is not armored, such as the PWC environment designation, and Richmond Beach Saltwater Park. NVCAs should be maintained in a predominantly natural, undisturbed, undeveloped, and vegetated condition, except where necessary to accommodate appurtenances to a permitted water-dependent use. The term “building setback” applies in areas where the railroad or bulkheads prohibit natural sediment transfer. In those areas, it is necessary to maintain hard-armored conditions, but further encroachment or vegetative clearing are not permitted. The area is measured horizontally from the OWHM and the structure or use.

Table 20.230.082 Native Conservation Area/Building Setbacks¹

Shoreline Environmental Designation	Minimum Native Vegetation Conservation or <u>Building Setback Area</u>¹
Urban Conservancy	150 feet or 50 feet from the top of a landslide hazard area, whichever is greater
Shoreline Residential	115 feet

Table 20.230.082 Native Conservation Area/Building Setbacks⁴

Shoreline Environmental Designation	Minimum Native Vegetation Conservation or <u>Building Setback Area</u>⁴
Waterfront Residential	20 feet
Point Wells Urban	200 feet (restoration required as part of development)
Point Wells Urban Conservancy	200 feet

Bulk standards will be regulated by underlying zoning according to SMC Table 20.50.020(1). Zoning designation is R6 for UC, SR, and WR, and yet to be determined for PW and PWC.

~~⁴—The term “native conservation area” (NVCA) applies to areas where the shoreline is not armored, such as the PWC environment designation, and Richmond Beach Saltwater Park. NVCAs should be maintained in a predominantly natural, undisturbed, undeveloped, and vegetated condition, except where necessary to accommodate appurtenances to a permitted water dependent use. The term “building setback” applies in areas where the railroad or bulkheads prohibit natural sediment transfer. In those areas, it is necessary to maintain hard-armored conditions, but further encroachment or vegetative clearing are not permitted.~~

20.230.090 Boating facilities.

Boating facilities serving two or more single-family dwelling units generally include boat launch ramps (public and private), wet and dry boat storage, and related sales and service for pleasure and commercial watercraft. For the purpose of this section, boat hoists, davits, lifts, and/or dry boat storage of private watercraft consistent with single-family residential properties are not included.

A. Boating Facilities Policies.

1. Boating facilities can have a significant impact on habitat. The impacts of boating facilities should be reviewed thoroughly before boating facilities are permitted in the shoreline jurisdiction.
2. Public and community boating facilities may be allowed. Individual private facilities are prohibited.
3. New nonresidential boating facilities may be allowed as a conditional use within the regulated shoreline. When allowed, such facilities should be designed to accommodate public access and enjoyment of the shoreline location. Depending on the scale of the facility, public access should include walkways, viewpoints, restroom facilities, and other recreational uses.

4. Dry boat storage should not be considered a water-oriented use. Only boat hoists, boat launch ramps, and access routes associated with a dry boat storage facility should be considered a water-oriented use.
5. Health, safety and welfare considerations must be addressed in application for development of boating facilities.
6. Navigation rights must be protected in development of boating facilities.
7. Extended moorage on waters of the State without a lease or permission is restricted and mitigation of impacts to navigation and access is required.

B. Boating Facilities Regulations.

1. Boating facilities may be permitted only if:
 - a. It can be demonstrated that the facility will not adversely impact fish or wildlife habitat areas or associated wetlands; and
 - b. Adequate mitigation measures ensure that there is no net loss of the functions or values of the shoreline and habitat as a result of the facility.
2. Boating facilities shall not be permitted within the following marine shoreline habitats because of their scarcity, biological productivity and sensitivity unless no alternative location is feasible, the project would result in a net enhancement of shoreline ecological functions, and the proposal is otherwise consistent with this program:
 - a. Critical saltwater habitats; and
 - b. Marshes, estuaries and other wetlands.
3. Preferred ramp designs, in order of priority, are:
 - a. Open grid designs with minimum coverage of beach substrate;
 - b. Seasonal ramps that can be removed and stored upland; and
 - c. Structures with segmented pads and flexible connections that leave space for natural beach substrate and can adapt to changes in beach profile.
4. Ramps shall be placed and maintained near flush with the foreshore slope.
5. Boat launches shall be designed and constructed using methods/technology that have been recognized and approved by State and Federal resource agencies as the best currently available. Rail and track systems shall be preferred over concrete ramps or similar facilities.
6. Launch access for nonmotorized watercraft shall use gravel or other permeable material. Removal of vegetation for launch access should be limited to eight feet in width.
7. Before granting approval of a permit to allow a boat launch ramp, the proponent must satisfactorily demonstrate that:
 - a. Adequate facilities for the efficient handling of sewage and litter will be provided;

- b. The boating facilities will be designed so that structures are aesthetically compatible with or enhance shoreline features and uses; and
- c. The boating facilities will be designed so that existing or potential public access along beaches is not blocked or made unsafe, and so that public use of the surface waters is not unduly impaired.

C. Boat Launch Ramps.

- 1. Boat launch ramps shall be located on stable shorelines where water depths are adequate to eliminate or minimize the need for channel maintenance activities.
- 2. Boat launch ramps may be permitted on accretion shoreforms provided any necessary grading is not harmful to affected resources.
- 3. Where boat ramps are permitted, parking and shuttle areas shall not be located on accretion shoreforms.
- 4. Boat launch ramps may be permitted on stable, noneroding banks where the need for shore stabilization structures is minimized.
- 5. Ramp structures shall be placed near flush with the foreshore slope to minimize the interruption of geohydraulic processes.
- 6. Boat launch sites that are open to the public shall have adequate restroom facilities operated and maintained in compliance with King County Health District regulations.

D. Dry Boat Storage.

- 1. Dry boat storage shall not be considered a water-oriented use and must comply with the required shoreline environment setback.
- 2. Only water-dependent aspects of dry boat storage, such as boat hoists and boat launch ramps, may be permitted within shoreline environment setbacks.
- 3. Boat launch ramps associated with dry boat storage shall be consistent with applicable requirements in this section.

20.230.095 Breakwaters, jetties, groins, and weirs.

A. Breakwaters, Jetties, Groins and Weirs Policies.

- 1. Breakwaters, jetties, groins, and weirs should be permitted only for water-dependent uses and only where mitigated to provide no net loss of shoreline ecological functions and processes.

B. Breakwaters, Jetties, Groins and Weirs Regulations.

- 1. Groins are prohibited except as a component of a professionally designed public beach management program that encompasses an entire drift sector or reach for which alternatives

are infeasible, or where installed to protect or restore shoreline ecological functions or processes.

2. Jetties and breakwaters are prohibited except as an integral component of a professionally designed harbor or port. Where permitted, floating, portable or submerged breakwater structures, or smaller discontinuous structures, are preferred where physical conditions make such alternatives with less impact feasible. Defense works that substantially reduce or block littoral drift and cause erosion of downdrift shores shall not be allowed unless an adequate long-term professionally engineered beach nourishment program is established and maintained.

20.230.100 Nonresidential development.

A. Nonresidential Development Policies.

1. Priority of any nonresidential development should be given to water-dependent and water-enjoyment uses. Allowed uses include restaurants that provide a view of the sound to customers, motels and hotels that provide walking areas for the public along the shoreline, office buildings, and retail sales buildings that have a waterfront theme with public access to the beach or water views.

2. Over-the-water nonresidential development shall be prohibited.

3. Nonresidential development should be required to provide on-site physical or visual access to the shoreline, or offer other opportunities for the public to enjoy shorelines of statewide significance. If on-site access cannot be provided, off-site access should be required. Off-site access could be procured through the purchase of land or an easement at a location appropriate to provide the access deemed necessary. Nonresidential developments should include multiple-use concepts such as open space and recreation.

4. Nonresidential development in the shoreline jurisdiction should include landscaping to enhance the shoreline area.

B. Nonresidential Development Regulations.

1. Over-water construction of nonresidential uses is prohibited, with the exception of boat facilities necessary for the operation of an associated nonresidential use.

2. All nonresidential development within the shoreline area shall provide for visual and/or physical access to the shoreline by the public. Where on-site public access is feasible, nonresidential development shall dedicate, improve, and provide maintenance for a pedestrian easement that provides area sufficient to ensure usable access to and along the shoreline for the general public. Public access easements shall be a minimum of 25 feet in width and shall

comply with the public access standards contained in the "Public Access" section of this Shoreline Master Program and ~~the Shoreline Development Code~~ SMC Title 20.

3. All nonresidential loading and service areas shall be located on the upland side of the nonresidential activity or provisions shall screen the loading and service areas from the shoreline.
4. All nonresidential development within shoreline jurisdiction shall assure no net loss of shoreline ecological functions.
5. A shoreline setback is not required to be maintained for water-dependent nonresidential development.
6. Water-dependent, nonresidential development shall maintain a shoreline setback of either 25 feet from the OHWM or 10 feet from the edge of the base flood elevation, whichever is greater. If public access is provided to the shoreline, the setback may be reduced to 10 feet from the OHWM or the edge of the base flood elevation, whichever is greater.
7. Non-water-dependent nonresidential development shall maintain a minimum setback from the OHWM consistent with Table 20.230.082.

20.230.110 In-stream structures.

A. In-Stream Structures Policies.

1. In-stream structures should provide for the protection and preservation of ecosystem-wide processes, ecological functions, and cultural resources including, but not limited to, fish and fish passage, wildlife and water resources, shoreline critical areas, hydrogeological processes, and natural scenic vistas. The location and planning of in-stream structures should give due consideration to the full range of public interests, watershed functions and processes, and environmental concerns, with special emphasis on protecting and restoring priority habitats and species.
2. Nonstructural and nonregulatory methods to protect, enhance, and restore shoreline ecological functions and processes and other shoreline resources should be encouraged as an alternative to structural in-stream structures.

B. In-Stream Structures Regulations.

1. Natural in-stream features such as snags, uprooted trees, or stumps should be left in place unless it can be demonstrated that they are actually causing bank erosion or higher flood stages.
2. In-stream structures shall allow for normal ground water movement and surface runoff.

3. In-stream structures shall not impede upstream or downstream migration of anadromous fish.
4. All debris, overburden and other waste materials from construction shall be disposed of in such a manner that prevents their entry into a water body.

20.230.115 Aquaculture.

A. Aquaculture Policies.

1. Potential locations for aquaculture are relatively restricted due to specific requirements for water quality, temperature, flows, oxygen content, adjacent land uses, wind protection, commercial navigation, and, in marine waters, salinity. The technology associated with some forms of present-day aquaculture is still in its formative stages and experimental. Therefore, the City recognizes the necessity for some latitude in the development of this use as well as its potential impact on existing uses and natural systems.
2. Aquaculture should not be permitted in areas where it would result in a net loss of ecological functions, adversely impact eelgrass and macroalgae, or significantly conflict with navigation and other water-dependent uses. Aquacultural facilities should be designed and located so as not to spread disease to native aquatic life, establish new nonnative species which cause significant ecological impacts, or significantly impact the aesthetic qualities of the shoreline. Impacts to ecological functions shall be mitigated according to the mitigation sequence described in SMC 20.230.020.

B. Aquaculture Regulations.

1. Aquaculture is allowed as a conditional use in the Aquatic environment where it can be located, designed, constructed, and managed to avoid a net loss of ecological functions, not spread diseases to native aquatic life, not adversely impact native eelgrasses and macroalgae species or not significantly conflict with navigation.
2. The supporting infrastructure for aquaculture may be located landward of the aquaculture operation subject to ~~the City's land use code~~ SMC Title 20.
3. Aquaculture facilities are required to develop best management practices to minimize impacts from the construction and management of the facilities.
4. New aquatic species that are not previously cultivated in Washington State shall not be introduced into Shoreline's saltwaters or freshwaters without prior written approval of the Director of the Washington State Department of Fish and Wildlife and the Director of the Washington Department of Health. This prohibition does not apply to: Pacific, Olympia, Kumomoto, Belon or Virginica oysters; Manila, Butter, or Littleneck clams; or Geoduck clams.

5. No aquacultural processing, except for the sorting or culling of the cultured organism and the washing or removal of surface materials or organisms, shall be permitted waterward of the ordinary high water mark unless fully contained within a tending boat or barge.
6. Aquaculture wastes shall be disposed of in a manner that will ensure compliance with all applicable governmental waste disposal standards, including but not limited to the Federal Clean Water Act, Section 401, and Chapter 90.48 RCW, Water Pollution Control. No garbage, wastes, or debris shall be allowed to accumulate at the site of any aquaculture operation.

20.230.120 Parking areas.

A. Parking Area Policies.

1. Parking in shoreline areas should be minimized.
2. Parking within shoreline areas should directly serve a permitted use on the property.
3. Parking in shoreline areas should be located and designed to minimize adverse impacts including those related to stormwater runoff, water quality, visual qualities, public access, and vegetation and habitat maintenance.
4. Landscaping should consist of native vegetation in order to enhance the habitat opportunities within the shorelines area.

B. Parking Regulations. Parking for specific land use activities within the City of Shoreline is subject to the requirements and standards set forth in Chapter 20.50 SMC, Subchapter 6, Parking, Access, and Circulation. In addition, the following parking requirements shall apply to all developments within shorelands:

1. The location of parking areas in or near shoreland areas shall be located outside of the minimum setbacks listed in Table 20.230.082 for the shoreline designation.
2. Parking in the shorelands must directly serve an approved shoreline use.
3. Parking shall be located on the landward side of the development unless parking is contained within a permitted structure. Where there is no available land area on the landward side of the development, parking shall extend no closer to the shoreline than a permitted structure.
4. Landscape screening is required between the parking area and all adjacent shorelines and properties as set forth in Chapter 20.50 SMC, Subchapter 7 Landscaping.
5. The landscape screening for parking areas located within the shoreline areas shall consist of native vegetation, planted prior to final approval of project, which provides effective screening two years after planting. Adequate screening or landscaping for parking lots shall consist of one or more of the following:

- a. A strip five feet wide landscaped with trees, shrubs, and/or groundcover;
 - b. A building or enclosed structure; and/or
 - c. A strip of land not less than two and one-half feet in width that is occupied by a continuous wall, fence, plant material, or combination of both; which shall be at least three and one-half feet high at time of installation. The plant material shall be evergreen and spaced not more than one and one-half feet on center if pyramidal in shape, or not more than three feet if wider in branching habit. If the plant material is used in conjunction with a wall or fence meeting the minimum height requirements, then said material may be of any kind and spacing. More restrictive screening may be required by Chapter 20.50 SMC, Subchapters 6 and 7. Required parking area screening may be incorporated into general landscaping requirements under Chapter 20.50 SMC, Subchapters 6 and 7.
6. The requirement for screening may be waived by the Director, where screening would obstruct a significant view from public property or public roadway.
 7. Parking areas shall not be permitted over the water.
 8. Parking as a primary use shall be prohibited within all shoreline environments.
 9. Parking or storage of recreational vehicles or travel trailers as a primary use shall be prohibited in all shoreline environments.

20.230.130 Recreational facilities.

Recreational development provides for low impact activities, such as hiking, photography, kayaking, viewing, and fishing, or more intensive uses such as parks. This section applies to both publicly and privately owned shoreline facilities.

A. Recreational Facilities Policies.

1. The coordination of local, State, and Federal recreation planning should be encouraged so as to mutually satisfy recreational needs. Shoreline recreational developments should be consistent with all adopted parks, recreation, and open space plans.
2. Parks, recreation areas, and public access points, such as hiking paths, bicycle paths, and scenic drives, should be linked.
3. Recreational developments should be located and designed to preserve, enhance, or create scenic views and vistas.
4. The use of jet-skis and similar recreational equipment should be restricted to special areas. This type of activity should be allowed only where no conflict exists with other uses and wildlife habitat.
5. All recreational developments should make adequate provisions for:

- a. Vehicular and pedestrian access, both on site and off site;
- b. Proper water, solid waste, and sewage disposal methods;
- c. Security and fire protection for the use itself and for any use-related impacts to adjacent private property;
- d. The prevention of overflow and trespass onto adjacent properties; and
- e. Buffering of such development from adjacent private property or natural areas.

B. Recreational Facilities Regulations.

1. Valuable shoreline resources and fragile or unique areas, such as wetlands and accretion shoreforms, shall be used only for low impact and nonstructural recreation activities.
2. For recreation developments that require the use of fertilizers, pesticides, or other chemicals, the property owner shall submit plans demonstrating the methods to be used to prevent these chemical applications and resultant leachate from entering adjacent water bodies. The property owner shall be required to maintain a chemical-free swath at least 100 feet in depth adjacent to water bodies.
3. Recreational facilities shall make adequate provisions, such as screening, buffer strips, fences, and signs, to mitigate nuisance to nearby private properties.
4. No recreational buildings or structures shall be built waterward of the OHWM, except water-dependent and/or water enjoyment structures such as bridges and viewing platforms. Such uses may be permitted as a shoreline conditional use.
5. Proposals for recreational development shall include adequate facilities for water supply, sewage, and garbage disposal.

20.230.140 Residential development.

- A. 1. Residential development does not include hotels, motels, or any other type of overnight or transient housing or camping facilities.
2. A shoreline substantial development permit is not required for construction of a single-family residence by an owner, lessee, or contract purchaser for their own use or the use of their family. Single-family residential construction and accessory structures must otherwise conform to this Shoreline Master Program.
3. A shoreline variance or shoreline conditional use permit may be required for residential development for situations specified in ~~the~~this Shoreline Master Program.
4. Uses and facilities associated with residential development, which are identified as separate use activities in this Shoreline Master Program, such as land disturbing activities, are subject to the regulations established for those uses in this section.

B. Residential Policies.

1. Public access should be provided in accordance with SMC 20.230.040.
2. Residential development and accessory uses should be prohibited over the water.
3. New subdivisions should be encouraged to cluster dwelling units in order to preserve natural features, minimize physical impacts, and provide for public access to the shoreline.
4. In all new subdivisions and detached single-family developments with four dwelling units, joint use shoreline facilities should be encouraged.
5. Accessory uses and structures should be designed and located to blend into the site as much as possible. Accessory uses and structures should be located landward of the principal residence when feasible.

C. Residential Regulations.

1. Residential development is prohibited waterward of the OHWM and within setbacks defined for each shoreline environment designation.
2. Residential development shall assure no net loss of shoreline ecological functions.
3. Residential development shall not be approved if geotechnical analysis demonstrates that flood control or shoreline protection measures are necessary to create a residential lot or site area. Residential development shall be located and designed to avoid the need for structural shore defense and flood protection works.
4. If wetlands or other critical areas are located on the development site, clustering of residential units shall be required in order to avoid impacts to these areas.
5. Storm drainage facilities shall include provisions to prevent the direct entry of uncontrolled and untreated surface water runoff into receiving waters as specified in the Stormwater Manual.
6. Subdivisions and planned unit developments of four waterfront lots/units shall dedicate, improve, and provide maintenance provisions for a pedestrian easement that provides area sufficient to ensure usable access to and along the shoreline for all residents of the development and the general public. When required, public access easements shall be a minimum of 25 feet in width and shall comply with the public access standards in SMC 20.230.040. The design shall conform to the standards in the Engineering Development Manual.
7. Single-family residential development shall maintain a minimum setback from the OHWM consistent with Table 20.230.082.
8. Multifamily residential development shall maintain a minimum setback from the OHWM consistent with Table 20.230.082.
9. One accessory structure to the residence may be placed within the required shoreline setback provided:

- a. No accessory structure shall cover more than 200 square feet.

Subchapter 3.

Shoreline Modification Policies and Regulations

20.230.150 General.

Shoreline modification involves developments that provide bank stabilization or flood control. The purpose of the modification is to reduce adverse impacts caused by natural processes, such as current, flood, tides, wind, or wave action. Shoreline modification includes all structural and nonstructural means to reduce flooding and/or erosion of banks.

Nonstructural methods include setbacks of permanent and temporary structures, relocation of the structure to be protected, ground water management, planning, bioengineering or “soft” engineered solutions, and regulatory measures to avoid the need for structural stabilization. “Hard” structural stabilization measures refer to those with solid, hard surfaces, such as concrete bulkheads, while “soft” structural measures rely on natural materials such as biotechnical vegetation or beach enhancement. Generally, the harder the construction measure, the greater the impact on shoreline processes, including sediment transport, geomorphology, and biological functions. New structural shoreline stabilization also often results in vegetation removal, as well as damage to nearshore habitat and shoreline corridors. There are a range of measures varying from soft to hard that include:

- Vegetation enhancement.
- Upland drainage control.
- Biotechnical measures.
- Beach enhancement.
- Anchor trees.
- Gravel placement.
- Rock revetments.
- Gabions.
- Concrete groins.
- Retaining walls and bluff walls.

- Bulkheads.

A. Shoreline Modification Policies – General.

1. Biostabilization and other bank stabilization measures should be located, designed, and constructed primarily to prevent damage to the existing primary structure.
2. All new development should be located and designed to prevent or minimize the need for shoreline stabilization measures and flood protection works. New development requiring shoreline stabilization shall be discouraged in areas where no preexisting shoreline stabilization is present.
3. Shoreline modifications are only allowed for mitigation or enhancement purposes, or when and where there is a demonstrated necessity to support or protect an existing primary structure or legally existing shoreline use that is otherwise in danger of loss or substantial damage.
4. Proposals for shoreline modifications should be designed to protect life and property without impacting shoreline resources.
5. Shoreline modifications that are natural in appearance, compatible with ongoing shoreline processes, and provide flexibility for long-term management, such as protective berms or vegetative stabilization, should be encouraged over structural means such as concrete bulkheads or extensive revetments, where feasible.
6. Structural solutions to reduce shoreline damage should be allowed only after it is demonstrated that nonstructural solutions would not be able to withstand the erosive forces of the current and waves.
7. The design of bank stabilization or protection works should provide for the long-term, multiple use of shoreline resources and public access to public shorelines.
8. In the design of publicly financed or subsidized works, consideration should be given to providing pedestrian access to shorelines for low impact outdoor recreation.
9. All flood protection measures should be placed landward of the natural flood boundary, including wetlands that are directly interrelated and interdependent with water bodies.
10. If through construction and/or maintenance of shoreline modification developments, the loss of vegetation and wildlife habitat will occur, mitigation should be required.
11. Existing, previously permitted stabilization measures, such as bulkheads, are considered engineered and abated hazards and shall not be classified as geologic hazard areas.

B. Shoreline Modification Regulations – General.

1. All new development, uses or activities within the shoreline area shall be located and designed to prevent or minimize the need for bank stabilization and flood protection works.

2. Permitted and shoreline conditional use requirements for bulkheads and revetments are specified in this chapter. All other forms of shoreline modification, except soft shore, must be approved as a shoreline conditional use within all shoreline environments.
3. All shoreline stabilization proposals require a geotechnical analysis.
4. All shoreline development and activity shall be located, designed, constructed, and managed in a manner that mitigates impacts to the environment. The preferred mitigation sequence (avoid, minimize, mitigate, compensate) shall follow that listed in SMC 20.230.020(A)WAC 173-26-201(2)(e).
5. New non-water-dependent development, including single-family residences, that includes structural shoreline stabilization shall not be allowed unless all of the conditions below apply, otherwise new stabilization measures are limited to protecting only existing developments:
 - a. The need to protect the development from destruction due to erosion caused by natural processes, such as currents and waves, is demonstrated through a geotechnical/hydrogeological report prepared by a City-approved qualified professional.
 - b. The erosion is not caused by upland conditions, such as the loss of vegetation and/or drainage issues.
 - c. There will be no net loss of shoreline ecological functions or impacts to adjacent or down-current properties.
 - d. Nonstructural measures, such as placing the development further from the shoreline, planting vegetation, or installing on-site drainage improvements and soft structural solutions such as bioengineering, are not feasible or not sufficient.
 - e. The structure will not cause adverse impacts to the functions and values of critical areas or properly functioning conditions for proposed, threatened, and endangered species.
 - f. Other mitigation/restoration measures are included in the proposal.
6. Upon project completion, all disturbed shoreline areas shall be restored to as near pre-project configuration as possible and replanted with appropriate vegetation. All losses in riparian vegetation or wildlife habitat shall be mitigated at a ratio of 1:1.25 (habitat lost to habitat replaced).
7. Shoreline stabilization and flood protection works are prohibited in wetlands and on point and channel bars. They are also prohibited in fish spawning areas.
8. Developments shall not reduce the volume and storage capacity of streams and adjacent wetlands or flood plains.
9. Use of refuse for the stabilization of shorelines is prohibited.

20.230.160 Dredging and disposal of dredging spoils.

A. Dredging and Dredge Spoil Policies.

1. Dredging waterward of the ordinary high water mark for the primary purpose of obtaining fill material is prohibited.
2. Dredging operations should be planned and conducted to minimize interference with navigation; avoid creating adverse impacts on other shoreline uses, properties, and ecological shoreline functions and values; and avoid adverse impacts to habitat areas and fish species.
3. Dredge spoil disposal in water bodies shall be prohibited except for habitat improvement.
4. Dredge spoil disposal on land should occur in areas where environmental impacts will not be significant.

B. Dredging and Dredge Spoil Regulations.

1. Dredging and dredge spoil disposal shall be permitted only where it is demonstrated that the proposed actions will not:
 - a. Result in significant damage to water quality, fish, and other essential biological elements;
 - b. Adversely alter natural drainage and circulation patterns, currents, or reduce floodwater capacities;
 - c. Adversely impact properly functioning conditions for proposed, threatened, or endangered species; or
 - d. Adversely alter functions and values of the shoreline and associated critical areas.
2. Proposals for dredging and dredge spoil disposal shall include all feasible mitigating measures to protect habitats and to minimize adverse impacts such as turbidity; release of nutrients, heavy metals, sulfides, organic materials, or toxic substances; depletion of oxygen; disruption of food chains; loss of benthic productivity; and disturbance of fish runs and/or important localized biological communities.
3. Dredging and dredge spoil disposal shall not occur in wetlands unless for approved maintenance or enhancement associated with a restoration project.
4. Dredging within the shorelines shall be permitted only:
 - a. For navigational purposes; or
 - b. For activities associated with shoreline or aquatic restoration or remediation.
5. When dredging is permitted, the dredging shall be the minimum necessary to accommodate the proposed use.
6. Dredging shall utilize techniques that cause minimum dispersal and broadcast of bottom material; hydraulic dredging shall be used wherever feasible in preference to agitation dredging.

7. Dredge material disposal shall be permitted in shoreline jurisdiction only as part of an approved shoreline habitat and natural systems enhancement, fish habitat enhancement or watershed restoration project.
8. Dredged spoil material may be disposed at approved upland sites. If these upland sites are dry lands and fall within shoreline jurisdiction, the disposal of dredge spoils shall be considered landfilling and must be consistent with all applicable provisions of the Master Program. Depositing dredge spoils within the Puget Sound shall be allowed only by shoreline conditional use for one of the following reasons:
 - a. For wildlife habitat improvements; or
 - b. To correct problems of material distribution that are adversely affecting fish resources.
9. If suitable alternatives for land disposal are not available or are infeasible, water disposal sites may be permitted by appropriate agencies, provided the sites are determined by the Director to be consistent with the following criteria:
 - a. Disposal will not interfere with geohydraulic processes;
 - b. The dredge spoil has been analyzed by a qualified professional and found to be minimally or nonpolluting;
 - c. Aquatic life will not be adversely affected; and
 - d. The site and method of disposal meet all requirements of applicable regulatory agencies.
10. Disposal of dredge material shall be done in accordance with the Washington State Department of Natural Resources (DNR) Dredge Material Management Program. DNR manages disposal sites through a site use authorization (SUA); all other required permits must be provided to DNR prior to the DNR issuing a SUA for dredge disposal.
11. The City may impose reasonable limitations on dredge spoil disposal operating periods and hours, and may require buffer strips at land disposal sites.

20.230.170 Piers and docks.

Piers and docks may be allowed in accordance with Table 20.230.081 only when the following conditions are met:

- A. The public's need for piers and docks is clearly demonstrated, and the proposal is consistent with protection of the public trust, as embodied in RCW 90.58.020.
- B. Avoidance of impacts to critical saltwater habitats by an alternative alignment or location is not feasible, or would result in unreasonable and disproportionate cost to accomplish the same general purpose.

- C. The project, including any required mitigation, will result in no net loss of ecological functions associated with critical saltwater habitat.
- D. The project is consistent with the State's interest in resource protection and species recovery.
- E. Private, noncommercial docks for joint or community use may be authorized; provided, that:
1. Avoidance of impacts to critical saltwater habitats by an alternative alignment or location is not feasible; and
 2. The project, including any required mitigation, will result in no net loss of ecological functions associated with critical saltwater habitat.
- F. An inventory of the site and adjacent beach sections to assess the presence of critical saltwater habitats and functions is required. The methods and extent of the inventory shall be consistent with accepted research methodology. Proposals will be evaluated using Washington State Department of Ecology technical assistance materials for guidance.
- G. Community moorage to serve new development shall be limited to the amount of moorage needed to serve lots with water frontage; provided, that a limited number of upland lots may also be accommodated. Applications for shared moorage shall demonstrate that mooring buoys are not feasible prior to approval of dock moorage.
- H. Piers and docks shall be constructed of materials that will not adversely affect water quality or aquatic plants and animals over the long term. Materials used for submerged portions of a pier or dock, decking, and other components that may come in contact with water shall be approved by applicable State agencies for use in water to avoid discharge of pollutants from wave splash, rain, or runoff. At a minimum, piles, floats, or other structural members in direct contact with the water shall be constructed of concrete or steel in accordance with best management practices (BMPs) published by the Washington State Department of Fish and Wildlife (WDFW) and the United States Army Corps of Engineers (USACE), and they shall not be treated or coated with herbicides, fungicides, paint, or pentachlorophenol. Use of arsenate compounds or creosote is prohibited.
- I. Pilings used in piers or docks shall have a minimum clearance of two feet above extreme high tide and a maximum clearance of five feet above the OHWM. Floats shall not rest on the substrate.
- J. To minimize adverse effects on nearshore habitats and species caused by over-water structures that reduce ambient light levels, the following shall apply:
1. The width of docks, piers, floats, and lifts shall be the minimum necessary, and shall not be wider than six feet;

2. The length of docks and piers shall be the minimum necessary to prevent the grounding of floats and boats on the substrate during low tide;
 3. Docks floats or floating docks shall include stops that serve to keep the float bottom off tidelands at low tide;
 4. The length and location of docks, piers, floats, and lifts pilings shall be designed using the BMPs as conditioned in the permitting documents approved by WDFW and USACE; and
 5. The size of shared docks or piers is limited to 700 square feet for two lots and 1,000 square feet for three or more lots.
- K. All new piers or docks must be fully grated. Grating to allow light passage or reflective panels to increase light refraction into the water shall be used on piers, docks, floats and gangways in nearshore areas. Decking shall have a minimum open space of 40 percent and after installation at least 60 percent ambient light beneath the structure shall be maintained.

20.230.175 Pier and dock repair, replacement, or expansion.

- A. Existing over-water structures may be repaired and/or replaced in the same location as the existing structure.
- B. Repair or replacement of 50 percent or more of an existing over-water deck structure shall include the replacement of the entire decking with grated material to achieve a minimum open space of 40 percent and shall result in at least 60 percent ambient light beneath the structure.
- C. Repair or replacement of less than 50 percent of the over-water deck structure shall use grated decking in the area to be replaced. If the cumulative repair in any three-year period exceeds 50 percent, the entire decking shall be replaced to achieve a minimum open space of 40 percent and shall result in at least 60 percent ambient light beneath the structure.
- D. Repair or replacement of structural members in contact with the water shall be constructed of concrete or steel in accordance with BMPs published by WDFW and USACE and they shall not be treated or coated with herbicides, fungicides, paint, or pentachlorophenol. Use of arsenate compounds or creosote is prohibited.
- E. Expansion of existing over-water structures is prohibited.
- F. Other repairs not described in this section to existing legally established structures are considered minor and may be permitted consistent with all applicable regulations.

20.230.180 Bulkheads.

Bulkheads are walls usually constructed parallel to the shore, whose primary purpose is to contain and prevent the loss of soil by erosion, wave, or current action. Bulkheads are typically

constructed of poured-in-place concrete; steel or aluminum sheet piling; wood; or wood and structural steel combinations.

The ~~Washington State~~ Shoreline Management Act only exempts the construction of a normal protective bulkhead associated with an existing single-family residence from the shoreline substantial development permit requirement. However, these structures are required to comply with all the policies and development standards of this Shoreline Master Program.

A. Bulkhead Policies.

1. Bulkheads constructed from natural materials, such as protective berms, beach enhancement, or vegetative stabilization, are strongly preferred over structural bulkheads constructed from materials such as steel, wood, or concrete. Proposals for bulkheads should demonstrate that natural methods are unworkable.
2. Bulkheads should be located, designed, and constructed primarily to prevent damage to the existing primary structure. New development that requires bulkheads is not permitted except as specifically provided under this Master Program.
3. Shoreline uses should be located in a manner so that a bulkhead is not likely to become necessary in the future.
4. Bulkheads should not be approved as a solution to geophysical problems such as mass slope failure, sloughing, or landslides. Bulkheads should only be approved for the purposes of preventing bank erosion by the Puget Sound.

B. Bulkhead Regulations.

1. New bulkheads may be allowed only when evidence is presented which demonstrates that one of the following conditions exists:
 - a. Serious erosion threatens an established use or existing primary structure on upland property.
 - b. Bulkheads are necessary to the operation and location of water-dependent, water-related, or water enjoyment activities consistent with this Shoreline Master Program; provided, that all other alternative methods of shore protection have proven infeasible; and/or
 - c. A bulkhead is necessary to retain landfilling that has been approved consistent with the provisions of ~~this~~ Shoreline Master Program.
2. Proposals for bulkheads must first demonstrate through a geotechnical analysis that use of natural materials and processes and nonstructural or soft structural solutions to bank stabilization are not feasible.
3. The construction of a bulkhead for the primary purpose of retaining landfilling shall be allowed only in conjunction with:

- a. A water-dependent use;
 - b. A bridge or navigational structure for which there is a demonstrated public need and where no feasible upland sites, design solutions, or routes exist; and/or
 - c. A wildlife or fish enhancement project.
4. Bulkheads shall not be located on shorelines where valuable geohydraulic or biological processes are sensitive to interference. Examples of such areas include wetlands and accretion landforms.
 5. Bulkheads are to be permitted only where local physical conditions, such as foundation bearing materials, and surface and subsurface drainage, are suitable for such alterations.
 6. If possible, bulkheads shall be located landward of the OHWM and generally parallel to the natural shoreline. In addition:
 - a. Where no other bulkheads are adjacent, the construction of a bulkhead shall be as close to the eroding bank as possible and in no case shall it be more than three feet from the toe of the bank;
 - b. A bulkhead for permitted landfilling shall be located at the toe of the fill; and
 - c. Where permitted, a bulkhead must tie in flush with existing bulkheads on adjoining properties, except where the adjoining bulkheads extend waterward of the base flood elevation, the requirements set forth in this section shall apply.
 7. Replacement bulkheads may be located immediately waterward of the bulkhead to be replaced such that the two bulkheads will share a common surface, except where the existing bulkhead has not been backfilled or has been abandoned and is in serious disrepair. In such cases, the replacement bulkhead shall not encroach waterward of the OHWM or existing structure unless the residence was occupied prior to January 1, 1992, and there are overriding safety or environmental concerns.
 8. All bulkhead proposals require a geotechnical report prepared by a qualified professional. Bulkheads shall be sited and designed as recommended in approved geotechnical reports. For the waterfront residential environment designation, one geotechnical report could be prepared for multiple properties.
 9. When a bulkhead is required at a public access site, provision for safe access to the water shall be incorporated into bulkhead design.
 10. Bulkheads shall be designed for the minimum dimensions necessary to adequately protect the development.
 11. Stairs or other permitted structures may be built into a bulkhead but shall not extend waterward of the bulkhead, unless they are retractable or removable.

12. Bulkheads shall be designed to permit the passage of surface or ground water without causing ponding or saturation of retained soil/materials.
13. Adequate toe protection consisting of proper footings, a fine retention mesh, etc., shall be provided to ensure bulkhead stability without relying on additional riprap.
14. Materials used in bulkhead construction shall meet the following standards:
 - a. Bulkheads shall utilize stable, nonerrodible, homogeneous materials such as concrete, wood, and rock that are consistent with the preservation and protection of the ecological habitat;
 - b. Dredge spoils shall not be used for fill behind bulkheads, except clean dredge spoil from a permitted off-site dredge and fill operation; and
 - c. Backfill and wave returns to stabilize bulkheads are permitted.

20.230.190 Revetment.

A revetment is a sloped shoreline structure built to protect an existing eroding shoreline or newly placed fill against currents. Revetments are most commonly built of randomly placed boulders (riprap) but may also be built of sand cement bags, paving or building blocks, gabions (rock filled wire baskets), or other systems and materials. The principal features of a revetment, regardless of type, is a heavy armor layer, a filter layer, and toe protection.

A. Revetment Policies.

1. The use of armored structural revetments should be limited to situations where it is determined that nonstructural solutions such as bioengineering, setbacks, buffers or any combination thereof, will not provide sufficient shoreline stabilization.
2. Revetments should be designed, improved, and maintained to provide public access whenever possible.

B. Revetment Regulation.

1. The proposed revetment shall be designed by a qualified professional engineer.
2. Design of revetments shall include and provide improved access to public shorelines whenever possible.
3. When permitted, the location and design of revetments shall be determined using engineering principles, including guidelines of the U.S. Soil Conservation Service and the U.S. Army Corps of Engineers.
4. Armored revetment design shall meet the following design criteria:
 - a. The size and quantity of the material shall be limited to only that necessary to withstand the estimated energy intensity of the hydraulic system;
 - b. Filter fabric must be used to aid drainage and help prevent settling;

- c. The toe reinforcement or protection must be adequate to prevent a collapse of the system from scouring or wave action; and
- d. Fish habitat components, such as large boulders, logs, and stumps, shall be considered in the design subject to a Hydraulic Project Approval by the Washington State Department of Fish and Wildlife.

20.230.200 Land disturbing activities.

A. Land Disturbing Activity Policies.

- 1. Land disturbing activities should only be allowed in association with a permitted shoreline development.
- 2. Land disturbing activities should be limited to the minimum necessary to accommodate the shoreline development or a landscape plan developed in conjunction with the shoreline development.
- 3. Erosion shall be prevented and sediment shall not enter waters of the State.

B. Land Disturbing Activity Regulations.

- 1. All land disturbing activities shall only be allowed in association with a permitted shoreline development.
- 2. All land disturbing activities shall be limited to the minimum necessary for the intended development, including any clearing and grading approved as part of a landscape plan. Clearing invasive, nonnative shoreline vegetation listed on the King County Noxious Weed List is permitted in the shoreline area with an approved clearing and grading permit provided best management practices are used as recommended by a qualified professional, and native vegetation is promptly reestablished in the disturbed area.
- 3. Tree and vegetation removal shall be prohibited in required native vegetation conservation areas, except as necessary to restore, mitigate or enhance the native vegetation by approved permit as required in these areas.
- 4. All significant trees in the native vegetation conservation areas shall be designated as protected trees consistent with SMC 20.50.330 and removal of hazard trees must be consistent with SMC 20.50.310(A)(1).
- 5. All shoreline development and activities shall use measures identified in the 2014 Department of Ecology Stormwater Management Manual for Western Washington, or as revised. Stabilization of exposed surfaces subject to erosion along shorelines shall, whenever feasible, utilize soil bioengineering techniques.

6. For extensive land disturbing activities that require a permit, a plan addressing species removal, revegetation, irrigation, erosion and sedimentation control, and other methods of shoreline protection should be required.

20.230.210 Landfilling.

A. Landfilling Policies.

1. The perimeter of landfilling should be designed to avoid or eliminate erosion and sedimentation impacts, during both initial landfilling activities and over time.
2. Where permitted, landfilling should be the minimum necessary to provide for the proposed use and should be permitted only when conducted in conjunction with a specific development proposal that is permitted by ~~the~~this Shoreline Master Program. Speculative landfilling activity should be prohibited.

B. Landfilling Regulations.

1. Landfilling activities shall only be permitted in conjunction with a specific development. Landfilling may be permitted as a shoreline conditional use for any of the following:
 - a. In conjunction with a water-dependent use permitted under this Shoreline Master Program; and/or
 - b. In conjunction with a bridge, utility, or navigational structure for which there is a demonstrated public need and where no feasible upland sites, design solutions, or routes exist.
2. Pier or pile supports shall be utilized in preference to landfilling. Landfilling for approved road development in floodways or wetlands shall be permitted only if pile or pier supports are proven structurally infeasible.
3. Landfilling shall be permitted only where it is demonstrated that the proposed action will not:
 - a. Result in significant damage to water quality, fish, and/or wildlife habitat; or
 - b. Adversely alter natural drainage and current patterns or significantly reduce floodwater capacities.
4. Where landfilling activities are permitted, the landfilling shall be the minimum necessary to accommodate the proposed use.
5. Landfilling from dredging and dredge material disposal shall be done in a manner that avoids or minimizes significant ecological impacts. Impacts that cannot be avoided shall be mitigated in a manner that assures no net loss of shoreline ecological functions.
6. Dredging waterward of the OHWM for the primary purpose of obtaining fill material shall not be allowed, except when the material is necessary for the restoration of shoreline ecological

functions. When allowed, the site where the fill is to be placed must be located waterward of the OHWM.

7. Landfilling shall be designed, constructed, and maintained to prevent, minimize, and control all material movement, erosion, and sedimentation from the affected area. Landfilling perimeters shall be designed and constructed with silt curtains, vegetation, retaining walls, or other mechanisms to prevent material movement. In addition, the sides of the landfilling shall be appropriately sloped to prevent erosion and sedimentation, during both the landfilling activities and afterwards.

8. Fill materials shall be clean sand, gravel, soil, rock, or similar material. Use of polluted dredge spoils and sanitary landfilling materials are prohibited. The property owner shall provide evidence that the material has been obtained from a clean source prior to fill placement.

9. Landfilling shall be designed to allow surface water penetration into aquifers, if such conditions existed prior to the fill.

20.230.230 Signs.

A. **Sign Policies.** Signs should be designed and placed so that they are compatible with the natural quality of the shoreline environment and adjacent land and water uses.

B. **Sign Regulations.** Signs within the City, including the shoreline area, are subject to the requirements and standards specified in Chapter 20.50 SMC, Subchapter 8. Signs are based on the underlying zoning. In addition, the following sign requirements shall apply to signs within shoreline areas:

1. Signs shall only be allowed in or over water for navigation purposes; at road or railroad crossings as necessary for operation, safety and direction; or as related and necessary to a water-dependent use.

2. Signs are permitted in all shoreline environments upland of the OHWM. These sign standards supplement the provisions of SMC 20.50.530 to 20.50.610. Where there is a conflict, the provisions herein shall apply.

C. **Prohibited Signs.**

1. All prohibited signs per SMC 20.50.550.

2. Balloons, any inflatable signs, or inflatable objects used to aid in promoting the sale of products, goods, services, events, or to identify a building.

3. Searchlights and beacons.

4. Electronic reader boards or changing message signs.

5. Neon signs.

6. Pole signs.
7. Backlit awnings used as signs.
8. Internally illuminated signs, except as allowed in subsection (D)(1) of this section.
9. Signs that impair visual access from public viewpoints in view corridors are prohibited in all shoreline environments.

D. Illumination of Signs.

1. Illumination of signs is only allowed as permitted by the underlying zoning.
2. Internal illumination of signs is only allowed with light provided by LED or other Energy Star rated luminaires, and is limited to:
 - a. Opaque cabinet signs where light only shines through the letters, not including symbols, images, or background; or
 - b. Shadow lighting, where letters are backlit, but light only shines through the edges of the letters.
3. All externally illuminated signs shall shield nearby properties from direct lighting. Light source must be within a maximum of six feet from the sign display, and limited to LED or other Energy Star rated luminaires.
4. No commercial sign shall be illuminated after 11:00 p.m. unless the commercial enterprise is open for business, and then may remain on only as long as the business is open.
5. The light from any illuminated sign shall be shaded, shielded or directed so that the light intensity or brightness shall not adversely affect:
 - a. Surrounding or facing premises;
 - b. Safe vision of operators of vehicles on public or private roads, highways, or parking areas; or
 - c. Safe vision of pedestrians on a public right-of-way.
6. Light from any sign shall not shine on, nor directly reflect into, residential structures, lots, or the water.
7. These provisions shall not apply to:
 - a. Lighting systems owned or controlled by any public agency for the purpose of directing or controlling navigation, traffic, and highway or street illumination;
 - b. Aircraft warning lights;
 - c. Temporary lighting used for repair or construction as required by governmental agencies; or
 - d. Temporary use of lights or decorations relating to religious or patriotic festivities.

20.230.240 Stormwater management facilities.

A. Stormwater Management Facilities Policies.

1. Stormwater facilities located in the shoreland area should be maintained only to the degree necessary to ensure the capacity and function of the facility, including the removal of nonnative, invasive plant species.
2. The stormwater facility should be planted with native vegetation.

B. Stormwater Management Facility Regulations.

1. New stormwater facilities shall be located so as not to require any shoreline protection works.
2. Stormwater facility development shall include public access to the shoreline, trail systems, and other forms of recreation, providing such uses will not unduly interfere with stormwater facility operations, endanger the public health, safety, and welfare, or create a significant and disproportionate liability for the owner.
3. Construction of stormwater facilities in shoreland areas shall be timed to avoid fish and/or wildlife migratory and spawning periods.

20.230.250 Transportation.

Transportation facilities are those structures and developments that aid in land and water surface movement of people, goods, and services. They include roads and highways, bridges and causeways, bikeways, trails, railroad facilities, and boat and floatplane terminals.

A. Transportation Policies.

1. New roads within the shoreline area should be minimized.
2. Roads and railroad locations should be planned to fit the topographical characteristics of the shoreline such that alteration of natural conditions is minimized.
3. Pedestrian and bicycle trails should be encouraged.
4. When existing transportation corridors are abandoned they should be reused for water-dependent use or public access.
5. Alternatives to new roads or road expansion in the shoreline area should be considered as a first option.
6. Joint use of transportation corridors within shoreline jurisdiction for roads, utilities, and motorized forms of transportation should be encouraged.
7. New roads should be designed to accommodate bicyclists, pedestrians and transit, where feasible.

B. Transportation Regulations.

1. Transportation facilities and services shall utilize existing transportation corridors wherever possible, provided the shoreline is not adversely impacted and the development is otherwise consistent with this Shoreline Master Program.
2. Transportation and primary utilities shall jointly use rights-of-way.
3. Landfilling activities for transportation facility development are prohibited in wetlands and on accretion beaches, except when all structural and upland alternatives have proven infeasible, and the transportation facilities are necessary to support uses consistent with this Shoreline Master Program.
4. Major new roads and railways shall avoid being located in the shoreline jurisdiction to the extent practical. These roads shall cross shoreline areas by the shortest, most direct route, unless this route would cause more damage to the environment.
5. New transportation facilities shall be located and designed to minimize or prevent the need for shoreline modification.
6. All bridges must be built high enough to allow the passage of debris, and provide three feet of clearance above the base flood elevation.
7. Shoreline transportation facilities shall be located and designed to avoid steep or unstable areas and fit the existing topography in order to minimize cuts and fills.
8. Bridge abutments and necessary approach fills shall be located landward of the OHWM, except bridge piers may be permitted in a water body as a shoreline conditional use.

20.230.260 Unclassified uses and activities.

In the event that a proposed shoreline use or activity is not identified or classified in this Shoreline Master Program, the following regulation shall apply.

A. Regulations. All uses and activities proposed in the shoreline area that are not classified by provisions in this Shoreline Master Program shall require a shoreline conditional use permit.

20.230.270 Utilities.

Primary utilities include substations, pump stations, treatment plants, sanitary sewer outfalls, electrical transmission lines greater than 55,000 volts, water, sewer or storm drainage mains greater than eight inches in diameter, gas and petroleum transmission lines, and submarine telecommunications cables. Accessory utilities include local public water, electric, natural gas distribution, public sewer collection, cable and telephone service, and appurtenances.

A. Utility Policies.

1. Utilities should utilize existing transportation and utility sites, rights-of-way, and corridors whenever possible. Joint use of rights-of-way and corridors should be encouraged.
2. Unless no other feasible alternative exists, utilities should be prohibited in the shoreline jurisdiction, wetlands, and other critical areas. There shall be no net loss of ecological functions or significant impacts to other shoreline resources or values.
3. New utility facilities should be located so as not to require extensive shoreline modifications.
4. Whenever possible, utilities should be placed underground or alongside or under bridges.
5. Solid waste disposal activities and facilities should be prohibited in shoreline areas.

B. Utility Regulations.

1. Utility development shall provide for compatible, multiple use of sites and rights-of-way when practical.
2. Utility development shall include public access to the shoreline, trail systems, and other forms of recreation, providing such uses will not unduly interfere with utility operations, endanger the public health, safety, and welfare, or create a significant and disproportionate liability for the owner.
3. The following primary utilities, which are not essentially water-dependent, may be permitted as a shoreline conditional use if it can be shown that no reasonable alternative exists:
 - a. Water system treatment plants;
 - b. Sewage system lines, interceptors, pump stations, and treatment plants;
 - c. Electrical energy generating plants, substations, lines, and cables; or
 - d. Petroleum and gas pipelines.
4. New solid waste disposal sites and facilities are prohibited.
5. New utility lines including electricity, communications, and fuel lines shall be located underground, except where the presence of bedrock or other obstructions make such placement infeasible.
6. Transmission and distribution facilities shall cross shoreline areas by the shortest, most direct route feasible, unless such route would cause increased environmental damage.
7. Utilities requiring withdrawal of water shall be located only where minimum flows as established by the Washington State Department of Fish and Wildlife can be maintained.
8. Utilities shall be located and designated so as to avoid the use of any structural or artificial shoreline modification.
9. All underwater pipelines are prohibited. If no other alternative exists, a shoreline conditional use permit is required.